```
     FILE 'REGISTRY' ENTERED AT 16:14:31 ON 02 DEC 2004
L1                STRUCTURE UPLOADED
L2                STRUCTURE UPLOADED
L3             2955 S L1 FULL
L4              108 S L2 FULL
L5                SCREEN 2067 OR  2068
L6                STRUCTURE UPLOADED
L7                QUE L6 NOT L5
L8                SCREEN 2067 OR  2068
L9                STRUCTURE UPLOADED
L10               QUE L9 NOT L8
L11              63 S L7 FULL
L12              80 S L10 FULL

     FILE 'CAPLUS' ENTERED AT 16:20:24 ON 02 DEC 2004
L13           38913 S PHOTORESIST OR RESIST COMPOSITION
L14             437 S L11
L15             574 S L12
L16               0 S L13 AND L14
L17               2 S L13 AND L15

     FILE 'REGISTRY' ENTERED AT 16:23:09 ON 02 DEC 2004
L18               SCREEN 2067 OR  2068
L19               STRUCTURE UPLOADED
L20               QUE L19 NOT L18
L21               SCREEN 2067 OR  2068
L22               STRUCTURE UPLOADED
L23               QUE L22 NOT L21
L24               2 S L20
L25               6 S L23

     FILE 'CAPLUS' ENTERED AT 16:30:23 ON 02 DEC 2004
L26               1 S L13 AND (L24 OR L25)

     FILE 'REGISTRY' ENTERED AT 16:30:49 ON 02 DEC 2004
L27               SCREEN 2067 OR  2068
L28               STRUCTURE UPLOADED
L29               QUE L28 NOT L27
L30               SCREEN 2067 OR  2068
L31               STRUCTURE UPLOADED
L32               QUE L31 NOT L30
L33              23 S L29 FULL
L34              11 S L32 FULL

     FILE 'CAPLUS' ENTERED AT 16:31:46 ON 02 DEC 2004

=> s l13 and (l33 or l34)
             45 L33
             23 L34
L35           0 L13 AND (L33 OR L34)

=>
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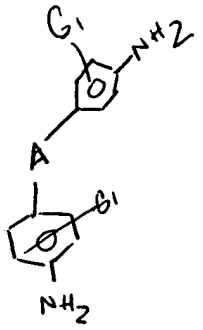
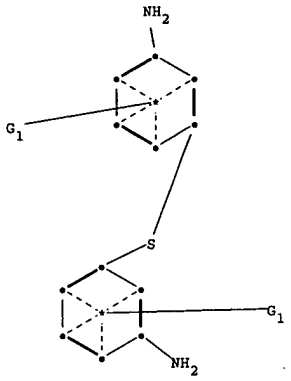
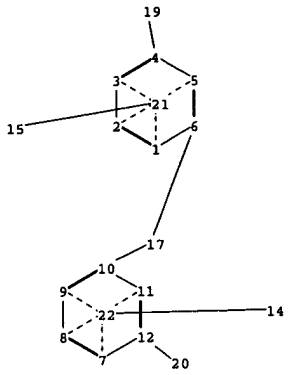


o, m + para positions

A = - S - or -S-S-

C:\Program Files\Stnexp\Queries\s6.str



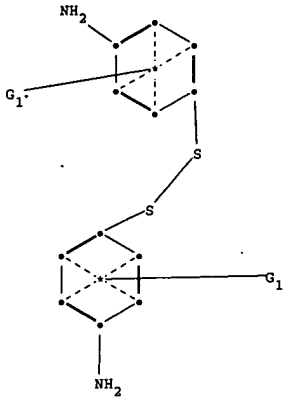


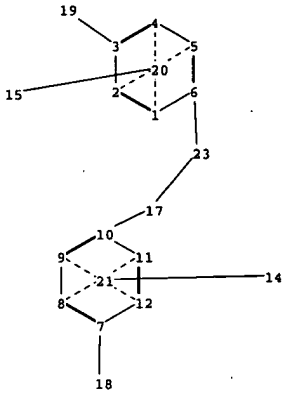
chain nodes :
14 15 17 19 20
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12
chain bonds :
4-19 6-17 10-17 12-20
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12
exact/norm bonds :
4-19 6-17 10-17 12-20
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12

G1:H,Ak

Connectivity :
17:2 E exact RC ring/chain
Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom
12:Atom 14:CLASS 15:CLASS 17:CLASS 19:CLASS 20:CLASS 21:CLASS 22:CLASS

C:\Program Files\Stnexp\Queries\s2.str





chain nodes :
14 15 17 18 19 23
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12
chain bonds :
3-19 6-23 7-18 10-17 17-23
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12
exact/norm bonds :
3-19 6-23 7-18 10-17 17-23
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12

G1:H,Ak

Connectivity :
17:2 E exact RC ring/chain 23:2 E exact RC ring/chain
Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom
12:Atom 14:CLASS 15:CLASS 17:CLASS 18:CLASS 19:CLASS 20:CLASS 21:CLASS 23:CLASS

```
Connecting via Winsock to STN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LOGINID:ssspta1809rxa

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2


* * * * * * * * * *   Welcome to STN International   * * * * * * * * * *

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 NEWS  3  SEP 01   INPADOC: New family current-awareness alert (SDI) available
 NEWS  4  SEP 01   New pricing for the Save Answers for SciFinder Wizard within
                   STN Express with Discover!
 NEWS  5  SEP 01   New display format, HITSTR, available in WPIDS/WPINDEX/WPIX
 NEWS  6  SEP 27   STANDARDS will no longer be available on STN
 NEWS  7  SEP 27   SWETSCAN will no longer be available on STN
 NEWS  8  OCT 28   KOREAPAT now available on STN
 NEWS  9  NOV 18   Current-awareness alerts, saved answer sets, and current
                   search transcripts to be affected by CERAB, COMPUAB, ELCOM,
                   and SOLIDSTATE reloads
 NEWS 10  NOV 30   PHAR reloaded with additional data
 NEWS 11  DEC 01   LISA now available on STN

 NEWS EXPRESS  OCTOBER 29 CURRENT WINDOWS VERSION IS V7.01A, CURRENT
               MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
               AND CURRENT DISCOVER FILE IS DATED 11 AUGUST 2004
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 NEWS PHONE    Direct Dial and Telecommunication Network Access to STN
 NEWS WWW      CAS World Wide Web Site (general information)

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  * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 16:14:24 ON 02 DEC 2004

=> file reg
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.21       0.21

FILE 'REGISTRY' ENTERED AT 16:14:31 ON 02 DEC 2004
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provided by InfoChem.
```

STRUCTURE FILE UPDATES: 1 DEC 2004 HIGHEST RN 791553-15-6
DICTIONARY FILE UPDATES: 1 DEC 2004 HIGHEST RN 791553-15-6

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

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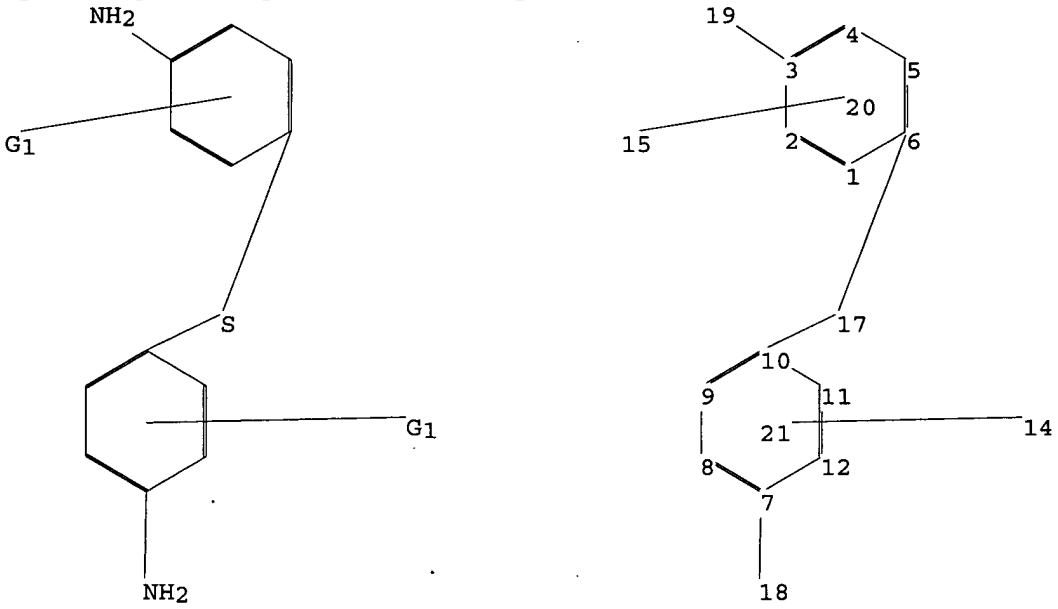

chain nodes :
14 15 17 18 19
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12
chain bonds :
3-19 6-17 7-18 10-17
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12
exact/norm bonds :
3-19 6-17 7-18 10-17
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12

G1:H,Ak

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 14:CLASS 15:CLASS 17:CLASS 18:CLASS 19:CLASS 20:CLASS 21:CLASS

L1 STRUCTURE UPLOADED

=>
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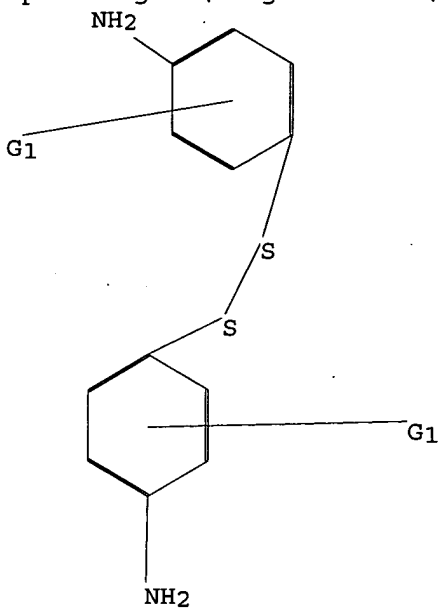
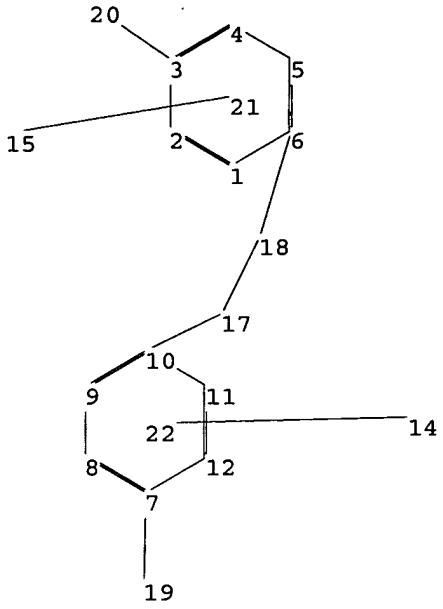




chain nodes :
14 15 17 18 19 20
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12
chain bonds :
3-20 6-18 7-19 10-17 17-18
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12
exact/norm bonds :
3-20 6-18 7-19 10-17 17-18
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12

G1:H,Ak

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 14:CLASS 15:CLASS 17:CLASS 18:CLASS 19:CLASS 20:CLASS
21:CLASS 22:CLASS

L2 STRUCTURE UPLOADED

=> s l1 full
FULL SEARCH INITIATED 16:15:08 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 25265 TO ITERATE

100.0% PROCESSED 25265 ITERATIONS 2955 ANSWERS
SEARCH TIME: 00.00.01

L3 2955 SEA SSS FUL L1

=> s l2 full
FULL SEARCH INITIATED 16:15:14 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 1148 TO ITERATE

100.0% PROCESSED 1148 ITERATIONS 108 ANSWERS
SEARCH TIME: 00.00.01

L4 108 SEA SSS FUL L2

=> d his

(FILE 'HOME' ENTERED AT 16:14:24 ON 02 DEC 2004)

FILE 'REGISTRY' ENTERED AT 16:14:31 ON 02 DEC 2004
L1 STRUCTURE UPLOADED
L2 STRUCTURE UPLOADED
L3 2955 S L1 FULL
L4 108 S L2 FULL

=> d l3 1-3

L3 ANSWER 1 OF 2955 REGISTRY COPYRIGHT 2004 ACS on STN
RN 790712-76-4 REGISTRY
CN INDEX NAME NOT YET ASSIGNED
MF (C25 H30 N2 O4 . C15 H16 O2 . C12 H12 N2 O2 S . C3 H5 Cl O . Unspecified)x
CI PMS
PCT Epoxy resin, Manual component, Polyamine, Polyother
SR CA
LC STN Files: CAPLUS
DT.CA CAplus document type: Patent
RL.P Roles from patents: PREP (Preparation); USES (Uses)

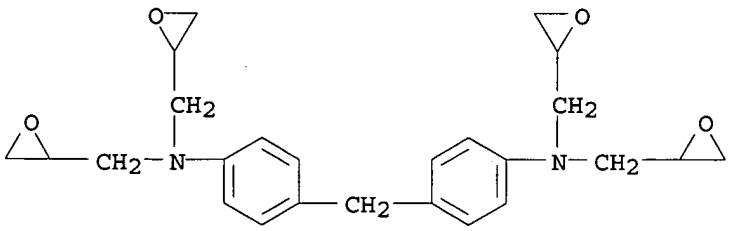
CM 1

CRN 186844-71-3
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

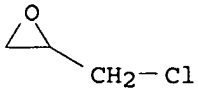
CM 2

CRN 28768-32-3
CMF C25 H30 N2 O4



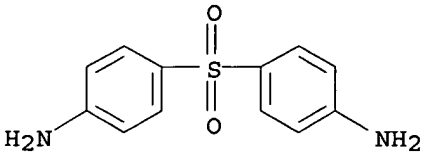
CM 3

CRN 106-89-8
CMF C3 H5 Cl O



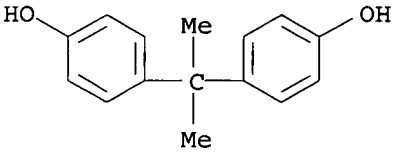
CM 4

CRN 80-08-0
CMF C12 H12 N2 O2 S



CM 5

CRN 80-05-7
CMF C15 H16 O2

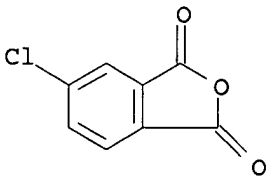


1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 2 OF 2955 REGISTRY COPYRIGHT 2004 ACS on STN
RN 783344-93-4 REGISTRY
CN 1,3-Isobenzofurandione, 4-chloro-, polymer with 5-chloro-1,3-isobenzofurandione, 4,4'-(1-methylethylidene)bis[phenol] and 4,4'-sulfonylbis[benzenamine] (9CI) (CA INDEX NAME)
MF (C15 H16 O2 . C12 H12 N2 O2 S . C8 H3 Cl O3 . C8 H3 Cl O3)x
CI PMS
PCT Polyamide, Polyamide formed, Polyester, Polyester formed, Polysulfone
SR CAS Client Services

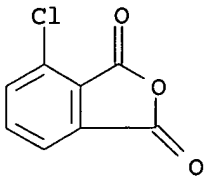
CM 1

CRN 118-45-6
CMF C8 H3 Cl O3



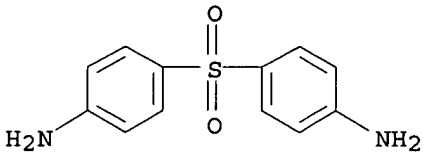
CM 2

CRN 117-21-5
CMF C8 H3 Cl O3



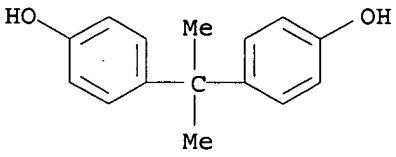
CM 3

CRN 80-08-0
CMF C12 H12 N2 O2 S



CM 4

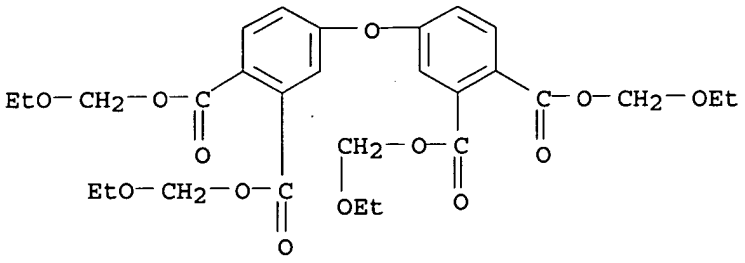
CRN 80-05-7
CMF C15 H16 O2



L3 ANSWER 3 OF 2955 REGISTRY COPYRIGHT 2004 ACS on STN
RN 782500-24-7 REGISTRY
CN 1,2-Benzenedicarboxylic acid, 4,4'-oxybis-, tetrakis(ethoxymethyl) ester, polymer with 4,4'-sulfonylbis[benzenamine] (9CI) (CA INDEX NAME)
MF (C28 H34 O13 . C12 H12 N2 O2 S)x
CI PMS
PCT Polyamic acid, Polyamic acid formed, Polyether, Polyimide, Polyimide formed, Polysulfone
SR CA
LC STN Files: CA, CAPLUS
DT.CA CAplus document type: Patent
RL.P Roles from patents: PROC (Process); USES (Uses)

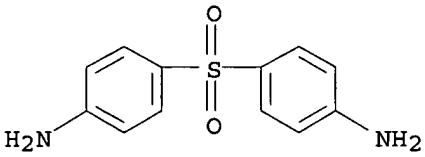
CM 1

CRN 782500-23-6
CMF C28 H34 O13



CM 2

CRN 80-08-0
CMF C12 H12 N2 O2 S



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> d his

(FILE 'HOME' ENTERED AT 16:14:24 ON 02 DEC 2004)

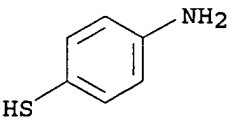
FILE 'REGISTRY' ENTERED AT 16:14:31 ON 02 DEC 2004
L1 STRUCTURE UPLOADED
L2 STRUCTURE UPLOADED
L3 2955 S L1 FULL
L4 108 S L2 FULL

=> d l4 1-3

L4 ANSWER 1 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
RN 477741-48-3 REGISTRY
CN Benzenethiol, 4-amino-, compd. with 4,4'-dithiobis[benzenamine] (1:1) (9CI) (CA INDEX NAME)
MF C12 H12 N2 S2 . C6 H7 N S
SR CA
LC STN Files: CA, CAPLUS
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: PRP (Properties)

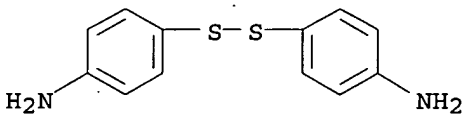
CM 1

CRN 1193-02-8
CMF C6 H7 N S



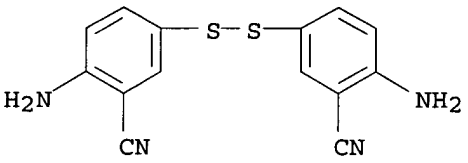
CM 2

CRN 722-27-0
CMF C12 H12 N2 S2



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L4 ANSWER 2 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
RN 345221-59-2 REGISTRY
CN Benzonitrile, 3,3'-dithiobis[6-amino- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C14 H10 N4 S2
SR Reaction Database



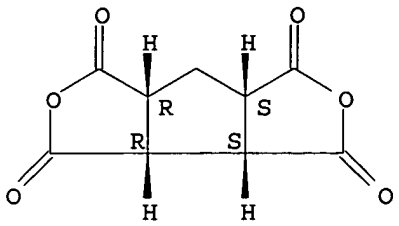
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L4 ANSWER 3 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
RN 311773-08-7 REGISTRY
CN 1H-Cyclopenta[1,2-c:3,4-c']difuran-1,3,4,6(3aH)-tetrone, tetrahydro-, (3aR,3bS,6aS,7aR)-rel-, polymer with 1,3-cyclohexanedimethanamine and 4,4'-dithiobis[benzenamine] (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 1,3-Cyclohexanedimethanamine, polymer with 4,4'-dithiobis[benzenamine] and rel-(3aR,3bS,6aS,7aR)-tetrahydro-1H-cyclopenta[1,2-c:3,4-c']difuran-1,3,4,6(3aH)-tetrone (9CI)
CN Benzenamine, 4,4'-dithiobis-, polymer with 1,3-cyclohexanedimethanamine and rel-(3aR,3bS,6aS,7aR)-tetrahydro-1H-cyclopenta[1,2-c:3,4-c']difuran-1,3,4,6(3aH)-tetrone (9CI)
FS STEREOSEARCH
MF (C12 H12 N2 S2 . C9 H6 O6 . C8 H18 N2)x
CI PMS
PCT Polyamic acid, Polyamic acid formed, Polyimide, Polyimide formed, Polysulfide
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: PREP (Preparation); PRP (Properties); USES (Uses)

CM 1

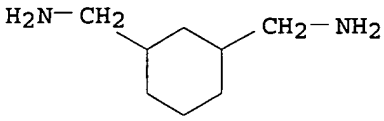
CRN 4802-47-5
CMF C9 H6 O6

Relative stereochemistry.



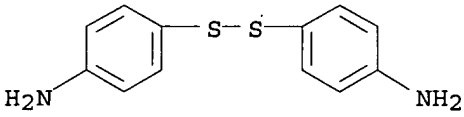
CM 2

CRN 2579-20-6
CMF C8 H18 N2



CM 3

CRN 722-27-0
CMF C12 H12 N2 S2



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

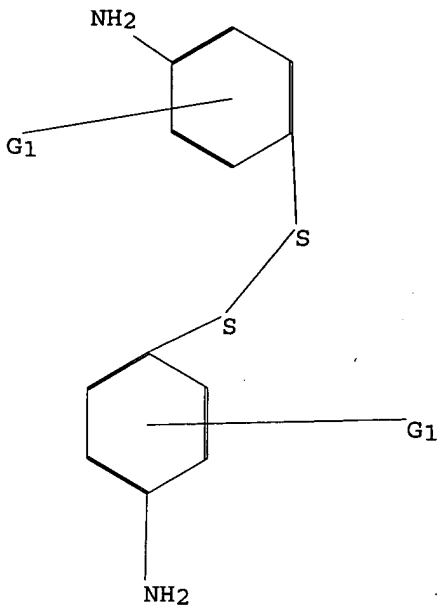
=> ....Testing the current file.... screen

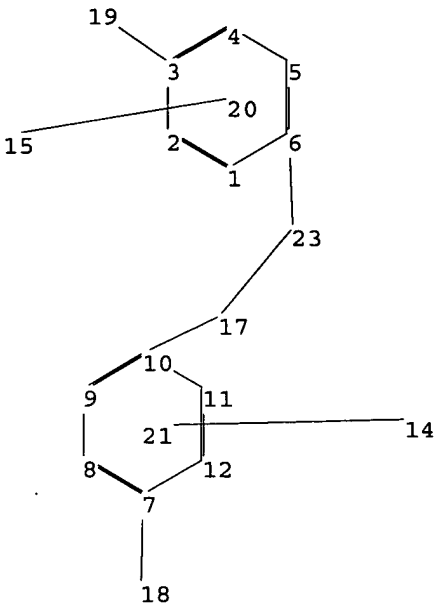
ENTER SCREEN EXPRESSION OR (END):end

=> screen 2067 OR 2068

L5 SCREEN CREATED

=>
Uploading C:\Program Files\Stnexp\Queries\s2.str





chain nodes :
14 15 17 18 19 23
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12
chain bonds :
3-19 6-23 7-18 10-17 17-23
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12
exact/norm bonds :
3-19 6-23 7-18 10-17 17-23
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12

G1:H,Ak

Connectivity :
17:2 E exact RC ring/chain 23:2 E exact RC ring/chain
Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 14:CLASS 15:CLASS 17:CLASS 18:CLASS 19:CLASS 20:CLASS
21:CLASS 23:CLASS

L6 STRUCTURE UPLOADED

=> que L6 NOT L5

L7 QUE L6 NOT L5

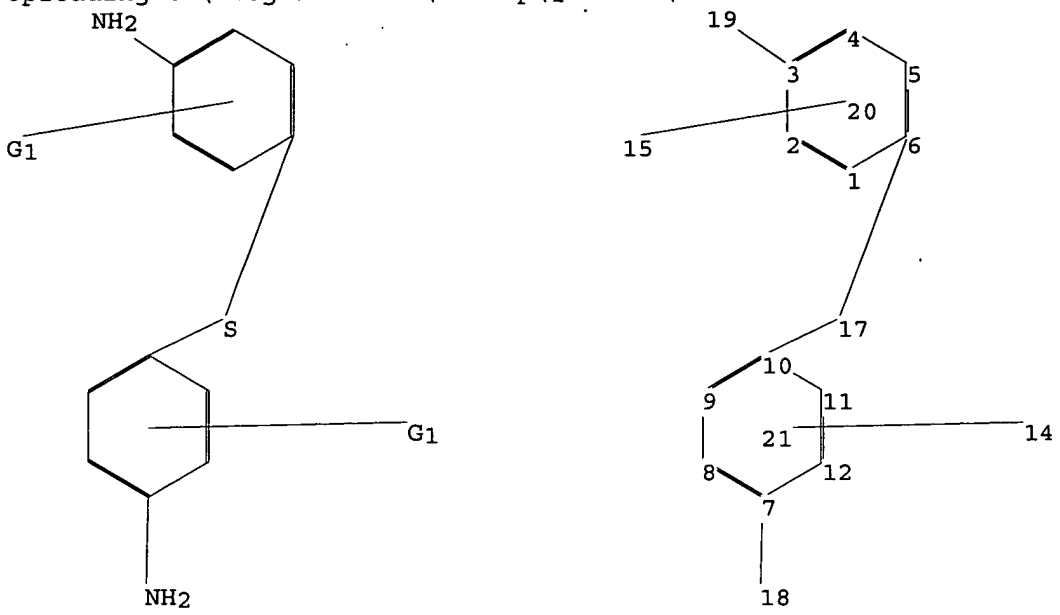
=> ....Testing the current file.... screen

ENTER SCREEN EXPRESSION OR (END):end

=> screen 2067 OR 2068

L8 SCREEN CREATED

=> .
Uploading C:\Program Files\Stnexp\Queries\s1.str



chain nodes :
14 15 17 18 19
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12
chain bonds :
3-19 6-17 7-18 10-17
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12
exact/norm bonds :
3-19 6-17 7-18 10-17
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12

G1:H,Ak

Connectivity :
17:2 E exact RC ring/chain
Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 14:CLASS 15:CLASS 17:CLASS 18:CLASS 19:CLASS 20:CLASS
21:CLASS

L9 STRUCTURE UPLOADED

=> que L9 NOT L8

L10 QUE L9 NOT L8

=> d his

(FILE 'HOME' ENTERED AT 16:14:24 ON 02 DEC 2004)

FILE 'REGISTRY' ENTERED AT 16:14:31 ON 02 DEC 2004
L1 STRUCTURE UPLOADED
L2 STRUCTURE UPLOADED
L3 2955 S L1 FULL

```
L4           108 S L2 FULL
L5               SCREEN 2067 OR  2068
L6               STRUCTURE UPLOADED
L7               QUE L6 NOT L5
L8               SCREEN 2067 OR  2068
L9               STRUCTURE UPLOADED
L10              QUE L9 NOT L8

=> s l7 full
FULL SEARCH INITIATED 16:19:50 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -   1003 TO ITERATE

100.0% PROCESSED    1003 ITERATIONS                          63 ANSWERS
SEARCH TIME: 00.00.01

L11          63 SEA SSS FUL L6 NOT L5

=> s l10 full
FULL SEARCH INITIATED 16:19:55 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -  17597 TO ITERATE

100.0% PROCESSED   17597 ITERATIONS                          80 ANSWERS
SEARCH TIME: 00.00.01

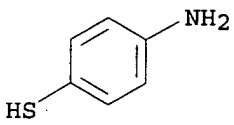
L12          80 SEA SSS FUL L9 NOT L8

=> d l11 1-3

L11  ANSWER 1 OF 63  REGISTRY  COPYRIGHT 2004 ACS on STN
RN   477741-48-3  REGISTRY
CN   Benzenethiol, 4-amino-, compd. with 4,4'-dithiobis[benzenamine] (1:1)
     (9CI)  (CA INDEX NAME)
MF   C12 H12 N2 S2 . C6 H7 N S
SR   CA
LC   STN Files:   CA, CAPLUS
DT.CA  CAplus document type:  Journal
RL.NP  Roles from non-patents:  PRP (Properties)

     CM   1

     CRN  1193-02-8
     CMF  C6 H7 N S
```

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     CM   2

     CRN  722-27-0
     CMF  C12 H12 N2 S2
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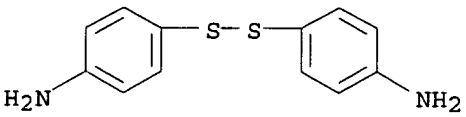
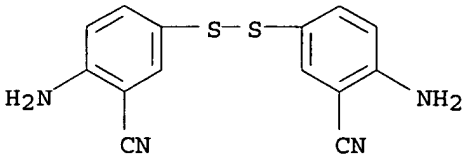



```
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
```

L11 ANSWER 2 OF 63 REGISTRY COPYRIGHT 2004 ACS on STN
RN 345221-59-2 REGISTRY
CN Benzonitrile, 3,3'-dithiobis[6-amino- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C14 H10 N4 S2
SR Reaction Database

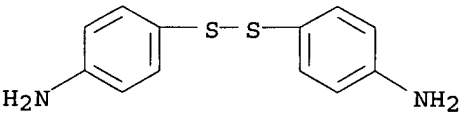


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L11 ANSWER 3 OF 63 REGISTRY COPYRIGHT 2004 ACS on STN
RN 296794-53-1 REGISTRY
CN 1,2-Benzenedicarboxylic acid, 4,4'-carbonylbis-, ar,ar'-dimethyl ester, compd. with 4,4'-dithiobis[benzenamine] (1:1) (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Benzenamine, 4,4'-dithiobis-, ar,ar'-dimethyl 4,4'-carbonylbis[1,2-benzenedicarboxylate] (1:1) (9CI)
MF C19 H14 O9 . C12 H12 N2 S2
SR CA
LC STN Files: CA, CAPLUS
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: PRP (Properties); RACT (Reactant or reagent)

CM 1

CRN 722-27-0
CMF C12 H12 N2 S2

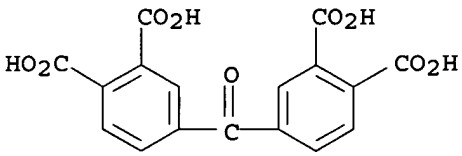


CM 2

CRN 36928-64-0
CMF C19 H14 O9
CCI IDS

CM 3

CRN 2479-49-4
CMF C17 H10 O9



CM 4

CRN 67-56-1
CMF C H4 O

H_3C-OH

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> d his

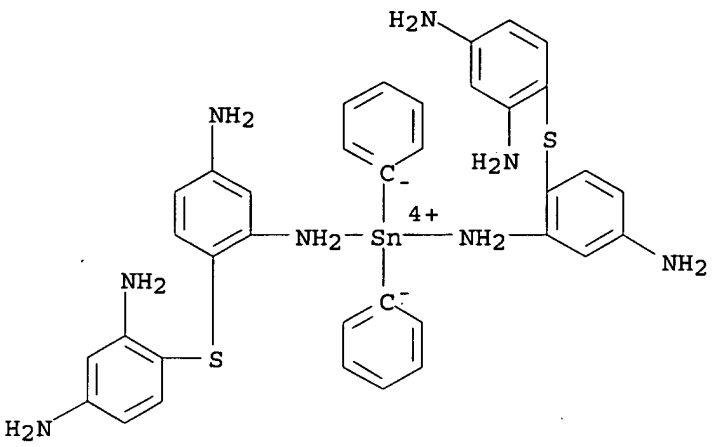
(FILE 'HOME' ENTERED AT 16:14:24 ON 02 DEC 2004)

FILE 'REGISTRY' ENTERED AT 16:14:31 ON 02 DEC 2004

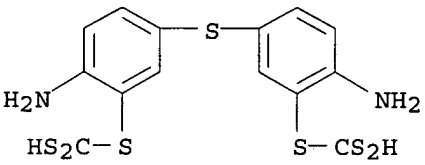
L1		STRUCTURE UPLOADED
L2		STRUCTURE UPLOADED
L3	2955	S L1 FULL
L4	108	S L2 FULL
L5		SCREEN 2067 OR 2068
L6		STRUCTURE UPLOADED
L7		QUE L6 NOT L5
L8		SCREEN 2067 OR 2068
L9		STRUCTURE UPLOADED
L10		QUE L9 NOT L8
L11	63	S L7 FULL
L12	80	S L10 FULL

=> d l12 1-3

L12 ANSWER 1 OF 80 REGISTRY COPYRIGHT 2004 ACS on STN
RN 776262-88-5 REGISTRY
CN Tin(2+), diphenylbis[4,4'-thiobis[1,3-benzenediamine]-N3]-, (T-4)- (9CI) (CA INDEX NAME)
MF C36 H38 N8 S2 Sn
CI CCS, COM
SR CA



L12 ANSWER 2 OF 80 REGISTRY COPYRIGHT 2004 ACS on STN
RN 772284-68-1 REGISTRY
CN Carbonotrithioic acid, thiobis(6-amino-3,1-phenylene) ester (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C14 H12 N2 S7
CI COM
SR CA

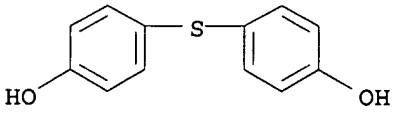


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L12 ANSWER 3 OF 80 REGISTRY COPYRIGHT 2004 ACS on STN
RN 761444-80-8 REGISTRY
CN Phenol, 4,4'-thiobis-, compd. with 4,4'-thiobis[benzenamine] (1:1) (9CI) (CA INDEX NAME)
MF C12 H12 N2 S . C12 H10 O2 S
SR CA
LC STN Files: CAPLUS
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: PREP (Preparation); PRP (Properties)

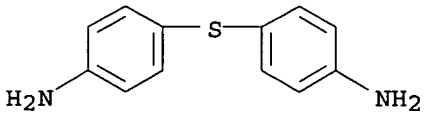
CM 1

CRN 2664-63-3
CMF C12 H10 O2 S



CM 2

CRN 139-65-1
CMF C12 H12 N2 S



1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

```
=> file caplus
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                   645.44     645.65

FILE 'CAPLUS' ENTERED AT 16:20:24 ON 02 DEC 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)
```



```
FILE COVERS 1907 - 2 Dec 2004  VOL 141 ISS 23
FILE LAST UPDATED: 1 Dec 2004  (20041201/ED)

  This file contains CAS Registry Numbers for easy and accurate
  substance identification.


=> s photoresist or resist composition
         38301 PHOTORESIST
         50518 RESIST
        627726 COMPOSITION
           989 RESIST COMPOSITION
                 (RESIST(W)COMPOSITION)
L13      38913 PHOTORESIST OR RESIST COMPOSITION

=> d his

     (FILE 'HOME' ENTERED AT 16:14:24 ON 02 DEC 2004)

     FILE 'REGISTRY' ENTERED AT 16:14:31 ON 02 DEC 2004
L1             STRUCTURE UPLOADED
L2             STRUCTURE UPLOADED
L3          2955 S L1 FULL
L4           108 S L2 FULL
L5             SCREEN 2067 OR  2068
L6             STRUCTURE UPLOADED
L7             QUE L6 NOT L5
L8             SCREEN 2067 OR  2068
L9             STRUCTURE UPLOADED
```

```
L10             QUE L9 NOT L8
L11          63 S L7 FULL
L12          80 S L10 FULL

     FILE 'CAPLUS' ENTERED AT 16:20:24 ON 02 DEC 2004
L13       38913 S PHOTORESIST OR RESIST COMPOSITION

=> s l11
L14         437 L11

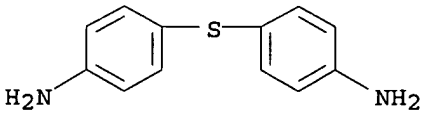
=> s l12
L15         574 L12

=> s l13 and l14
L16           0 L13 AND L14

=> s l13 and l15
L17           2 L13 AND L15

=> d 1-2 bib ab hitstr

L17  ANSWER 1 OF 2  CAPLUS  COPYRIGHT 2004 ACS on STN
AN   1991:256978  CAPLUS
DN   114:256978
TI   Actinic radiation-sensitive polymerizable composition
IN   Tomikawa, Masao; Eguchi, Masuichi; Kusano, Kazutaka
PA   Toray Industries, Inc., Japan
SO   Jpn. Kokai Tokkyo Koho, 9 pp.
     CODEN: JKXXAF
DT   Patent
LA   Japanese
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
     ---------------     ----   --------    --------------------   --------
PI   JP 02294649          A2    19901205    JP 1989-116606         19890509
PRAI JP 1989-116606             19890509
AB   The title composition comprises a polymer containing the structure-repeating
unit
     COR1(CO2R3)nCONHR2NH (R1 = C≥2 tri or tetravalent organic group; R2 =
     C≥2 divalent organic group; R3 = H, alkali metal counter ion; n = 1,
     2), a compound containing amino group (quaternized amino group) and unsatd.
     group dimerizable or polymerizable under radiation, an aromatic azide and/or
     an aromatic sulfonazide, and an N-arylglycine compound  The composition is
useful
     for patterning by g-line stepper.  Thus, a N-methyl-2-pyrrolidone solution of
     4,4'-diaminodiphenyl sulfide and 1,3-bis(3-aminopropyl)tetramethyldisiloxa
     ne was mixed with pyromellitic anhydride, diethylaminoethyl methacrylate,
     4-azidobenzalacetophenone, and N-phenylglycine to give the title composition
     Then, a Si wafer was spin-coated with the composition, dried, imagewise exposed
     to UV (436 nm), developed with a mixture of xylene and N-methylpyrrolidone,
     and rinsed with isopropanol to give a pattern showing retention of film
     thickness and retention of surface smoothness after heating.
IT   139-65-1, 4,4'-Diaminodiphenyl sulfide
     RL: USES (Uses)
        (photoresist containing polyamic acid from, for semiconductor
        device fabrication)
RN   139-65-1  CAPLUS
CN   Benzenamine, 4,4'-thiobis- (9CI)  (CA INDEX NAME)
```



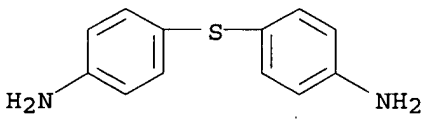
L17 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1984:148513 CAPLUS
DN 100:148513
TI Producing images in **photoresist** layers
IN Irving, Edward
PA Ciba-Geigy A.-G. , Switz.
SO Eur. Pat. Appl., 32 pp.
CODEN: EPXXDW
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 85024	A2	19830803	EP 1983-810016	19830117
	EP 85024	A3	19840926		
	EP 85024	B1	19870715		
	R: BE, CH, DE, FR, GB, IT, LI, NL, SE				
	US 4439517	A	19840327	US 1983-457107	19830110
	CA 1183038	A1	19850226	CA 1983-419783	19830119
	ES 519144	A1	19840516	ES 1983-519144	19830120
	JP 58136028	A2	19830812	JP 1983-8631	19830121
PRAI	GB 1982-1726	A	19820121		

AB **Photoresist** compns. are described which consist of an epoxy resin, a benzenoid polyamine, and an aromatic compound which upon exposure to light frees an acid that acts as an accelerator for the hardening of the epoxy resin by the benzenoid polyamine upon heating. Thus, a Cu-coated body was coated with a composition containing a 2,2-bis(3,5-dibromo-4-hydroxyphenyl)propane-2,2-bis(p-hydroxyphenyl)propane epoxy resin 10, a 1,1,2,2-tetrakis(p-hydroxyphenyl)ethane tetraglycidyl ether-2,2-bis(p-hydroxyphenyl)propane diglycidyl ether mixture 5, poly[2,2-bis(p-hydroxyphenyl)propane] 5, bis(4-aminophenyl)methane (in di-Bu phthalate) 4, o-nitrobenzaldehyde 4, and cyclohexanone 20 parts, exposed through a neg., heated at 120° for 15 min, and developed with PhMe to remove the unhardened areas and give a clear image.

IT **139-65-1**
RL: USES (Uses)
(**photoresist** compns. containing acid-releasing compound and epoxy resin and)

RN 139-65-1 CAPLUS
CN Benzenamine, 4,4'-thiobis- (9CI) (CA INDEX NAME)



=> file reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	17.18	662.83
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-1.40	-1.40

FILE 'REGISTRY' ENTERED AT 16:23:09 ON 02 DEC 2004

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 1 DEC 2004 HIGHEST RN 791553-15-6
DICTIONARY FILE UPDATES: 1 DEC 2004 HIGHEST RN 791553-15-6

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=> d his

     (FILE 'HOME' ENTERED AT 16:14:24 ON 02 DEC 2004)

     FILE 'REGISTRY' ENTERED AT 16:14:31 ON 02 DEC 2004
L1   STRUCTURE UPLOADED
L2   STRUCTURE UPLOADED
L3   2955 S L1 FULL
L4   108 S L2 FULL
L5   SCREEN 2067 OR 2068
L6   STRUCTURE UPLOADED
L7   QUE L6 NOT L5
L8   SCREEN 2067 OR 2068
L9   STRUCTURE UPLOADED
L10   QUE L9 NOT L8
L11   63 S L7 FULL
L12   80 S L10 FULL

     FILE 'CAPLUS' ENTERED AT 16:20:24 ON 02 DEC 2004
L13   38913 S PHOTORESIST OR RESIST COMPOSITION
L14   437 S L11
L15   574 S L12
L16   0 S L13 AND L14
L17   2 S L13 AND L15

     FILE 'REGISTRY' ENTERED AT 16:23:09 ON 02 DEC 2004

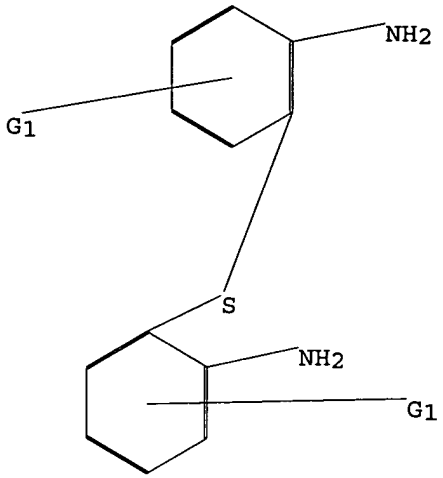
=> ....Testing the current file.... screen

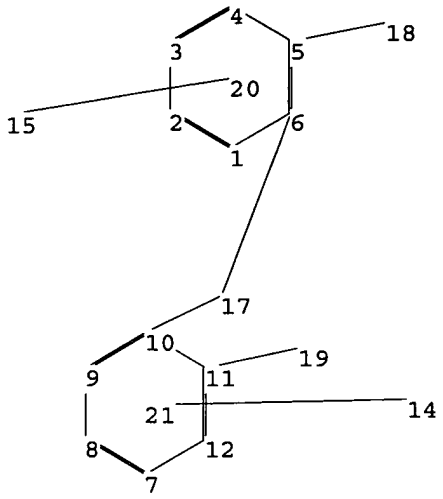
ENTER SCREEN EXPRESSION OR (END):end

=> screen 2067 OR 2068

L18   SCREEN CREATED

=>
Uploading C:\Program Files\Stnexp\Queries\s3.str





chain nodes :
14 15 17 18 19
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12
chain bonds :
5-18 6-17 10-17 11-19
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12
exact/norm bonds :
5-18 6-17 10-17 11-19
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12

G1:H,Ak

Connectivity :
17:2 E exact RC ring/chain
Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 14:CLASS 15:CLASS 17:CLASS 18:CLASS 19:CLASS 20:CLASS
21:CLASS

L19 STRUCTURE UPLOADED

=> que L19 NOT L18

L20 QUE L19 NOT L18

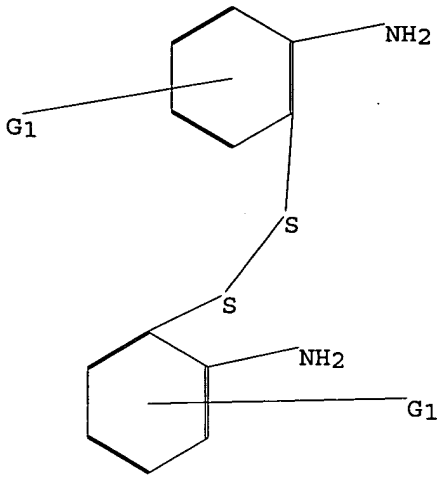
=> ....Testing the current file.... screen

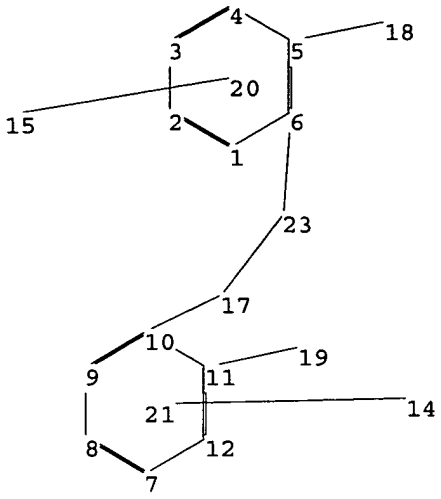
ENTER SCREEN EXPRESSION OR (END):end

=> screen 2067 OR 2068

L21 SCREEN CREATED

=>
Uploading C:\Program Files\Stnexp\Queries\s4.str





chain nodes :
14 15 17 18 19 23
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12
chain bonds :
5-18 6-23 10-17 11-19 17-23
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12
exact/norm bonds :
5-18 6-23 10-17 11-19 17-23
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12

G1:H,Ak

Connectivity :
17:2 E exact RC ring/chain 23:2 E exact RC ring/chain
Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 14:CLASS 15:CLASS 17:CLASS 18:CLASS 19:CLASS 20:CLASS
21:CLASS 23:CLASS

L22 STRUCTURE UPLOADED

=> que L22 NOT L21

L23 QUE L22 NOT L21

=> d his

(FILE 'HOME' ENTERED AT 16:14:24 ON 02 DEC 2004)

FILE 'REGISTRY' ENTERED AT 16:14:31 ON 02 DEC 2004
L1 STRUCTURE UPLOADED
L2 STRUCTURE UPLOADED
L3 2955 S L1 FULL
L4 108 S L2 FULL
L5 SCREEN 2067 OR 2068
L6 STRUCTURE UPLOADED
L7 QUE L6 NOT L5
L8 SCREEN 2067 OR 2068

```
L9              STRUCTURE UPLOADED
L10             QUE L9 NOT L8
L11          63 S L7 FULL
L12          80 S L10 FULL

     FILE 'CAPLUS' ENTERED AT 16:20:24 ON 02 DEC 2004
L13       38913 S PHOTORESIST OR RESIST COMPOSITION
L14         437 S L11
L15         574 S L12
L16           0 S L13 AND L14
L17           2 S L13 AND L15

     FILE 'REGISTRY' ENTERED AT 16:23:09 ON 02 DEC 2004
L18             SCREEN 2067 OR  2068
L19             STRUCTURE UPLOADED
L20             QUE L19 NOT L18
L21             SCREEN 2067 OR  2068
L22             STRUCTURE UPLOADED
L23             QUE L22 NOT L21

=> s l20
SAMPLE SEARCH INITIATED 16:30:03 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -    589 TO ITERATE

100.0% PROCESSED     589 ITERATIONS                              2 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:        10324 TO    13236
PROJECTED ANSWERS:               2 TO      124

L24           2 SEA SSS SAM L19 NOT L18

=> s l23
SAMPLE SEARCH INITIATED 16:30:09 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -     53 TO ITERATE

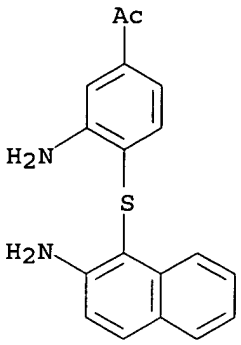
100.0% PROCESSED      53 ITERATIONS                              6 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:          624 TO     1496
PROJECTED ANSWERS:               6 TO      266

L25           6 SEA SSS SAM L22 NOT L21

=> d l24 1-2

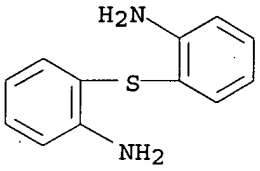
L24  ANSWER 1 OF 2  REGISTRY  COPYRIGHT 2004 ACS on STN
RN   91816-53-4  REGISTRY
CN   Ethanone, 1-[3-amino-4-[(2-amino-1-naphthalenyl)thio]phenyl]- (9CI)  (CA
     INDEX NAME)
FS   3D CONCORD
MF   C18 H16 N2 O S
LC   STN Files:   CA, CAPLUS
DT.CA  CAplus document type:  Patent
RL.P   Roles from patents:  PREP (Preparation)
```



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L24 ANSWER 2 OF 2 REGISTRY COPYRIGHT 2004 ACS on STN
RN 72319-21-2 REGISTRY
CN Benzenamine, 2,2'-thiobis-, dihydrochloride (9CI) (CA INDEX NAME)
MF C12 H12 N2 S . 2 Cl H
LC STN Files: BEILSTEIN*, CHEMLIST
(*File contains numerically searchable property data)
Other Sources: NDSL**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)
CRN (5873-51-8)



●2 HCl

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	8.58	671.41

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-1.40

FILE 'CAPLUS' ENTERED AT 16:30:23 ON 02 DEC 2004

FILE COVERS 1907 - 2 Dec 2004 VOL 141 ISS 23
FILE LAST UPDATED: 1 Dec 2004 (20041201/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d his

(FILE 'HOME' ENTERED AT 16:14:24 ON 02 DEC 2004)

FILE 'REGISTRY' ENTERED AT 16:14:31 ON 02 DEC 2004
L1 STRUCTURE UPLOADED
L2 STRUCTURE UPLOADED
L3 2955 S L1 FULL
L4 108 S L2 FULL
L5 SCREEN 2067 OR 2068
L6 STRUCTURE UPLOADED
L7 QUE L6 NOT L5
L8 SCREEN 2067 OR 2068
L9 STRUCTURE UPLOADED
L10 QUE L9 NOT L8
L11 63 S L7 FULL
L12 80 S L10 FULL

FILE 'CAPLUS' ENTERED AT 16:20:24 ON 02 DEC 2004
L13 38913 S PHOTORESIST OR RESIST COMPOSITION
L14 437 S L11
L15 574 S L12
L16 0 S L13 AND L14
L17 2 S L13 AND L15

FILE 'REGISTRY' ENTERED AT 16:23:09 ON 02 DEC 2004
L18 SCREEN 2067 OR 2068
L19 STRUCTURE UPLOADED
L20 QUE L19 NOT L18
L21 SCREEN 2067 OR 2068
L22 STRUCTURE UPLOADED
L23 QUE L22 NOT L21
L24 2 S L20
L25 6 S L23

FILE 'CAPLUS' ENTERED AT 16:30:23 ON 02 DEC 2004

=> s l13 and (l24 or l25)
1 L24
441 L25
L26 1 L13 AND (L24 OR L25)

=> d

L26 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1991:237652 CAPLUS
DN 114:237652
TI Far-UV photosensitive polymer compositions containing silsesquioxanes
IN Sakata, Yoshikazu; Ito, Toshio
PA Oki Electric Industry Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF

DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 02222957	A2	19900905	JP 1989-44358	19890223
PRAI	JP 1989-44358		19890223		

=> file reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	1.50	672.91

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-1.40

FILE 'REGISTRY' ENTERED AT 16:30:49 ON 02 DEC 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 1 DEC 2004 HIGHEST RN 791553-15-6
DICTIONARY FILE UPDATES: 1 DEC 2004 HIGHEST RN 791553-15-6

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

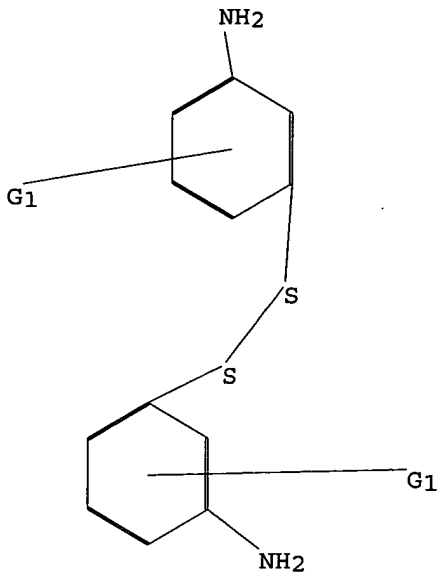
=> ....Testing the current file.... screen

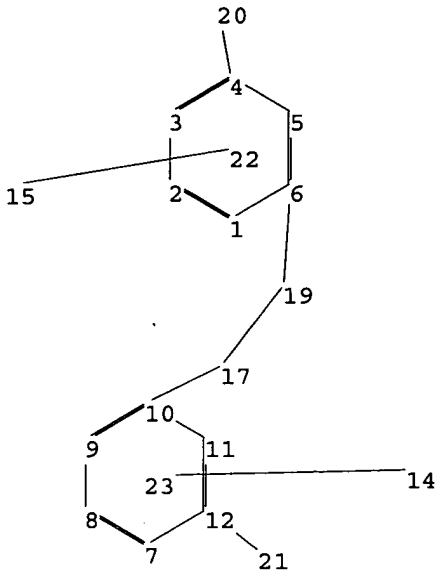
ENTER SCREEN EXPRESSION OR (END):end

=> screen 2067 OR 2068

L27 SCREEN CREATED

=>
Uploading C:\Program Files\Stnexp\Queries\s5.str





chain nodes :
14 15 17 19 20 21
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12
chain bonds :
4-20 6-19 10-17 12-21 17-19
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12
exact/norm bonds :
4-20 6-19 10-17 12-21 17-19
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12

G1:H,Ak

Connectivity :
17:2 E exact RC ring/chain 19:2 E exact RC ring/chain
Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 14:CLASS 15:CLASS 17:CLASS 19:CLASS 20:CLASS 21:CLASS
22:CLASS 23:CLASS

L28 STRUCTURE UPLOADED

=> que L28 NOT L27

L29 QUE L28 NOT L27

=> ....Testing the current file.... screen

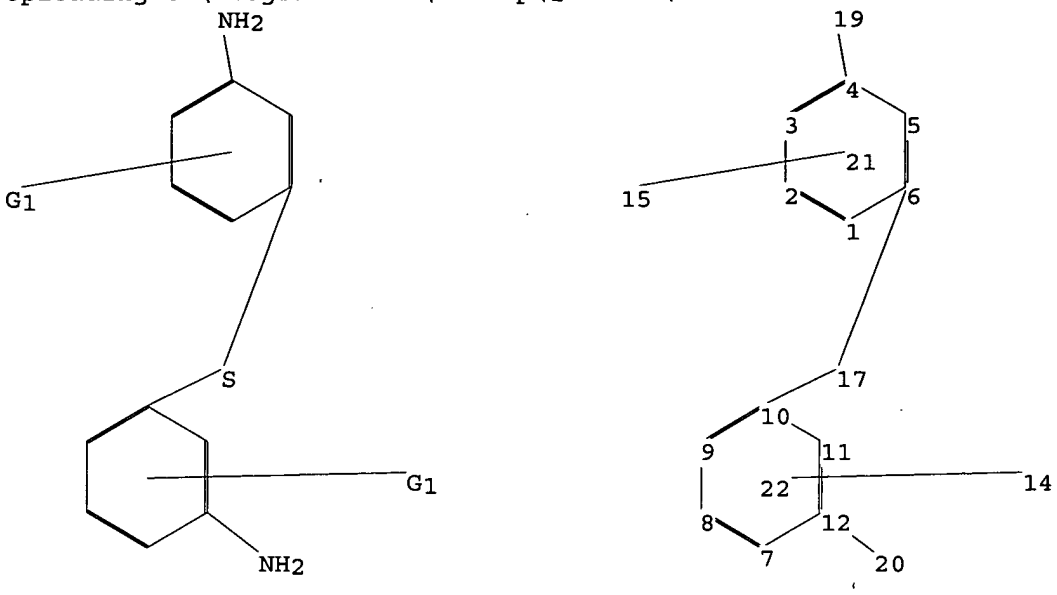
ENTER SCREEN EXPRESSION OR (END):end

=> screen 2067 OR 2068

L30 SCREEN CREATED

=>

Uploading C:\Program Files\Stnexp\Queries\s6.str



chain nodes :
14 15 17 19 20
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12
chain bonds :
4-19 6-17 10-17 12-20
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12
exact/norm bonds :
4-19 6-17 10-17 12-20
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12

G1:H,Ak

Connectivity :
17:2 E exact RC ring/chain
Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 14:CLASS 15:CLASS 17:CLASS 19:CLASS 20:CLASS 21:CLASS
22:CLASS

L31 STRUCTURE UPLOADED

=> que L31 NOT L30

L32 QUE L31 NOT L30

=> d his

(FILE 'HOME' ENTERED AT 16:14:24 ON 02 DEC 2004)

FILE 'REGISTRY' ENTERED AT 16:14:31 ON 02 DEC 2004
L1 STRUCTURE UPLOADED
L2 STRUCTURE UPLOADED
L3 2955 S L1 FULL
L4 108 S L2 FULL
L5 SCREEN 2067 OR 2068

```
L6              STRUCTURE UPLOADED
L7              QUE L6 NOT L5
L8              SCREEN 2067 OR  2068
L9              STRUCTURE UPLOADED
L10             QUE L9 NOT L8
L11          63 S L7 FULL
L12          80 S L10 FULL

     FILE 'CAPLUS' ENTERED AT 16:20:24 ON 02 DEC 2004
L13       38913 S PHOTORESIST OR RESIST COMPOSITION
L14         437 S L11
L15         574 S L12
L16           0 S L13 AND L14
L17           2 S L13 AND L15

     FILE 'REGISTRY' ENTERED AT 16:23:09 ON 02 DEC 2004
L18             SCREEN 2067 OR  2068
L19             STRUCTURE UPLOADED
L20             QUE L19 NOT L18
L21             SCREEN 2067 OR  2068
L22             STRUCTURE UPLOADED
L23             QUE L22 NOT L21
L24           2 S L20
L25           6 S L23

     FILE 'CAPLUS' ENTERED AT 16:30:23 ON 02 DEC 2004
L26           1 S L13 AND (L24 OR L25)

     FILE 'REGISTRY' ENTERED AT 16:30:49 ON 02 DEC 2004
L27             SCREEN 2067 OR  2068
L28             STRUCTURE UPLOADED
L29             QUE L28 NOT L27
L30             SCREEN 2067 OR  2068
L31             STRUCTURE UPLOADED
L32             QUE L31 NOT L30

=> s l29 full
FULL SEARCH INITIATED 16:31:35 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -    270 TO ITERATE

100.0% PROCESSED     270 ITERATIONS                          23 ANSWERS
SEARCH TIME: 00.00.01

L33          23 SEA SSS FUL L28 NOT L27

=> s l32 full
FULL SEARCH INITIATED 16:31:40 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -   5837 TO ITERATE

100.0% PROCESSED    5837 ITERATIONS                          11 ANSWERS
SEARCH TIME: 00.00.01

L34          11 SEA SSS FUL L31 NOT L30

=> file caplus
COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
                                                 ENTRY    SESSION
FULL ESTIMATED COST                              310.84     983.75

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)    SINCE FILE      TOTAL
                                                 ENTRY    SESSION
CA SUBSCRIBER PRICE                                0.00      -1.40

FILE 'CAPLUS' ENTERED AT 16:31:46 ON 02 DEC 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
```

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 2 Dec 2004 VOL 141 ISS 23
FILE LAST UPDATED: 1 Dec 2004 (20041201/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d his

(FILE 'HOME' ENTERED AT 16:14:24 ON 02 DEC 2004)

FILE 'REGISTRY' ENTERED AT 16:14:31 ON 02 DEC 2004
L1 STRUCTURE UPLOADED
L2 STRUCTURE UPLOADED
L3 2955 S L1 FULL
L4 108 S L2 FULL
L5 SCREEN 2067 OR 2068
L6 STRUCTURE UPLOADED
L7 QUE L6 NOT L5
L8 SCREEN 2067 OR 2068
L9 STRUCTURE UPLOADED
L10 QUE L9 NOT L8
L11 63 S L7 FULL
L12 80 S L10 FULL

FILE 'CAPLUS' ENTERED AT 16:20:24 ON 02 DEC 2004
L13 38913 S PHOTORESIST OR RESIST COMPOSITION
L14 437 S L11
L15 574 S L12
L16 0 S L13 AND L14
L17 2 S L13 AND L15

FILE 'REGISTRY' ENTERED AT 16:23:09 ON 02 DEC 2004
L18 SCREEN 2067 OR 2068
L19 STRUCTURE UPLOADED
L20 QUE L19 NOT L18
L21 SCREEN 2067 OR 2068
L22 STRUCTURE UPLOADED
L23 QUE L22 NOT L21
L24 2 S L20
L25 6 S L23

FILE 'CAPLUS' ENTERED AT 16:30:23 ON 02 DEC 2004
L26 1 S L13 AND (L24 OR L25)

FILE 'REGISTRY' ENTERED AT 16:30:49 ON 02 DEC 2004
L27 SCREEN 2067 OR 2068
L28 STRUCTURE UPLOADED
L29 QUE L28 NOT L27
L30 SCREEN 2067 OR 2068
L31 STRUCTURE UPLOADED

```
L32             QUE L31 NOT L30
L33          23 S L29 FULL
L34          11 S L32 FULL

     FILE 'CAPLUS' ENTERED AT 16:31:46 ON 02 DEC 2004

=> s l13 and (l33 or l34)
            45 L33
            23 L34
L35          0 L13 AND (L33 OR L34)

=> d l32
L32 HAS NO ANSWERS
L30             SCR 2067 OR 2068
L31             STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY -  AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.
L32             QUE  L31 NOT L30


=>

---Logging off of STN---


=>
Executing the logoff script...


=> LOG Y

COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.44     984.19

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                       ENTRY    SESSION
CA SUBSCRIBER PRICE                                     0.00      -1.40

STN INTERNATIONAL LOGOFF AT 16:32:37 ON 02 DEC 2004
```

```
Connecting via Winsock to STN


Welcome to STN International!  Enter x:x

LOGINID:ssspta1809rxa

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2


* * * * * * * * * *   Welcome to STN International   * * * * * * * * * *

 NEWS  1           Web Page URLs for STN Seminar Schedule - N. America
 NEWS  2           "Ask CAS" for self-help around the clock
 NEWS  3  SEP 01   INPADOC: New family current-awareness alert (SDI) available
 NEWS  4  SEP 01   New pricing for the Save Answers for SciFinder Wizard within
                   STN Express with Discover!
 NEWS  5  SEP 01   New display format, HITSTR, available in WPIDS/WPINDEX/WPIX
 NEWS  6  SEP 27   STANDARDS will no longer be available on STN
 NEWS  7  SEP 27   SWETSCAN will no longer be available on STN
 NEWS  8  OCT 28   KOREAPAT now available on STN
 NEWS  9  NOV 18   Current-awareness alerts, saved answer sets, and current
                   search transcripts to be affected by CERAB, COMPUAB, ELCOM,
                   and SOLIDSTATE reloads
 NEWS 10  NOV 30   PHAR reloaded with additional data
 NEWS 11  DEC 01   LISA now available on STN

 NEWS EXPRESS  OCTOBER 29 CURRENT WINDOWS VERSION IS V7.01A, CURRENT
               MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
               AND CURRENT DISCOVER FILE IS DATED 11 AUGUST 2004
 NEWS HOURS    STN Operating Hours Plus Help Desk Availability
 NEWS INTER    General Internet Information
 NEWS LOGIN    Welcome Banner and News Items
 NEWS PHONE    Direct Dial and Telecommunication Network Access to STN
 NEWS WWW      CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that
specific topic.

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  result in loss of user privileges and other penalties.

  * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 15:12:13 ON 01 DEC 2004

=> file reg
COST IN U.S. DOLLARS                            SINCE FILE      TOTAL
                                                   ENTRY    SESSION
FULL ESTIMATED COST                                 0.21       0.21

FILE 'REGISTRY' ENTERED AT 15:12:24 ON 01 DEC 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2004 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.
```

STRUCTURE FILE UPDATES: 29 NOV 2004 HIGHEST RN 790629-40-2
DICTIONARY FILE UPDATES: 29 NOV 2004 HIGHEST RN 790629-40-2

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

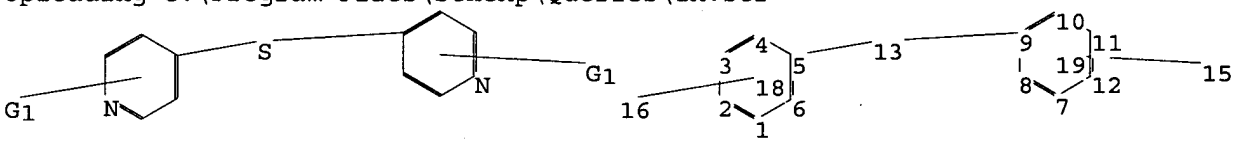
=> ....Testing the current file.... screen

ENTER SCREEN EXPRESSION OR (END):end

=> screen 2040

L1   SCREEN CREATED

=>
Uploading C:\Program Files\Stnexp\Queries\zx.str



chain nodes :
13 15 16
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12
chain bonds :
5-13 9-13
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12
exact/norm bonds :
5-13 9-13
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12

G1:H,Ak

Hydrogen count :
2:= exact 0 12:= exact 0
Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:CLASS 15:CLASS 16:CLASS 18:CLASS 19:CLASS

L2   STRUCTURE UPLOADED

=> que L2 NOT L1

L3 QUE L2 NOT L1

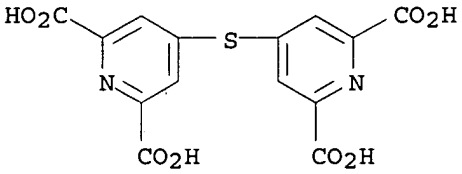
=> s l3 full
FULL SEARCH INITIATED 15:12:47 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 1989 TO ITERATE

100.0% PROCESSED 1989 ITERATIONS 153 ANSWERS
SEARCH TIME: 00.00.01

L4 153 SEA SSS FUL L2 NOT L1

=> d 1-3

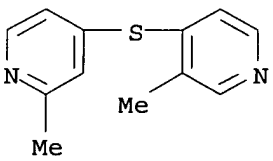
L4 ANSWER 1 OF 153 REGISTRY COPYRIGHT 2004 ACS on STN
RN 446884-12-4 REGISTRY
CN 2,6-Pyridinedicarboxylic acid, 4,4'-thiobis- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 4,4'-Thiobis[2,6-pyridinedicarboxylic acid]
FS 3D CONCORD
MF C14 H8 N2 O8 S
SR CA
LC STN Files: CA, CAPLUS, CASREACT
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: PREP (Preparation); PROC (Process); PRP
(Properties)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

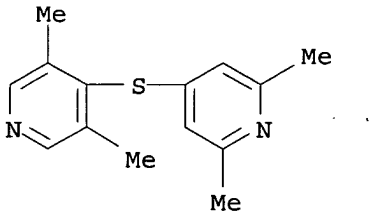
L4 ANSWER 2 OF 153 REGISTRY COPYRIGHT 2004 ACS on STN
RN 343778-36-9 REGISTRY
CN Pyridine, 2-methyl-4-[(3-methyl-4-pyridinyl)thio]- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C12 H12 N2 S
CI COM
SR Reaction Database
LC STN Files: CASREACT



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L4 ANSWER 3 OF 153 REGISTRY COPYRIGHT 2004 ACS on STN
RN 343218-50-8 REGISTRY

CN Pyridine, 4-[(3,5-dimethyl-4-pyridinyl)thio]-2,6-dimethyl- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C14 H16 N2 S
CI COM
SR Reaction Database



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	161.15	161.36

FILE 'CAPLUS' ENTERED AT 15:13:37 ON 01 DEC 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 1 Dec 2004 VOL 141 ISS 23
FILE LAST UPDATED: 29 Nov 2004 (20041129/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s photoresist or resist composition
38281 PHOTORESIST
50508 RESIST
627766 COMPOSITION
990 RESIST COMPOSITION
(RESIST(W)COMPOSITION)
L5 38894 PHOTORESIST OR RESIST COMPOSITION

=> d his

(FILE 'HOME' ENTERED AT 15:12:13 ON 01 DEC 2004)

FILE 'REGISTRY' ENTERED AT 15:12:24 ON 01 DEC 2004
L1 SCREEN 2040

```
L2              STRUCTURE UPLOADED
L3              QUE L2 NOT L1
L4          153 S L3 FULL

     FILE 'CAPLUS' ENTERED AT 15:13:37 ON 01 DEC 2004
L5        38894 S PHOTORESIST OR RESIST COMPOSITION

=> s l4
L6          95 L4

=> s l5 and l6
L7           1 L5 AND L6

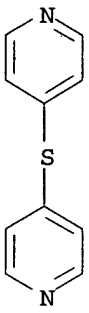
=> d

L7   ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2004 ACS on STN
AN   2000:772288  CAPLUS
DN   133:357238
TI   Negative-working resist composition
IN   Suetsugu, Masumi; Kusumoto, Takehiro; Takeyama, Naoki; Shinada, Masanori
PA   Sumitomo Chemical Co., Ltd., Japan
SO   Ger. Offen., 12 pp.
     CODEN: GWXXBX
DT   Patent
LA   German
FAN.CNT 2
     PATENT NO.           KIND   DATE        APPLICATION NO.         DATE
     ---------------      ----   --------    --------------------    --------
PI   DE 10021298           A1    20001102    DE 2000-10021298        20000502
     JP 2001147530         A2    20010529    JP 2000-88790           20000328
     TW 550268             B     20030901    TW 2000-89108000        20000427
     GB 2349479            A1    20001101    GB 2000-10477           20000428
     GB 2349479            B2    20010905
     US 6329119            B1    20011211    US 2000-559646          20000428
PRAI JP 1999-124526        A     19990430
     JP 1999-254630        A     19990908


=> d bib hitstr

L7   ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2004 ACS on STN
AN   2000:772288  CAPLUS
DN   133:357238
TI   Negative-working resist composition
IN   Suetsugu, Masumi; Kusumoto, Takehiro; Takeyama, Naoki; Shinada, Masanori
PA   Sumitomo Chemical Co., Ltd., Japan
SO   Ger. Offen., 12 pp.
     CODEN: GWXXBX
DT   Patent
LA   German
FAN.CNT 2
     PATENT NO.           KIND   DATE        APPLICATION NO.         DATE
     ---------------      ----   --------    --------------------    --------
PI   DE 10021298           A1    20001102    DE 2000-10021298        20000502
     JP 2001147530         A2    20010529    JP 2000-88790           20000328
     TW 550268             B     20030901    TW 2000-89108000        20000427
     GB 2349479            A1    20001101    GB 2000-10477           20000428
     GB 2349479            B2    20010905
     US 6329119            B1    20011211    US 2000-559646          20000428
PRAI JP 1999-124526        A     19990430
     JP 1999-254630        A     19990908
IT   37968-97-1, 4,4'-Dipyridylsulfide
     RL: TEM (Technical or engineered material use); USES (Uses)
        (base compound in neg.-working resist composition)
RN   37968-97-1  CAPLUS
```

CN Pyridine, 4,4'-thiobis- (9CI) (CA INDEX NAME)



=> file reg
COST IN U.S. DOLLARS

	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	13.31	174.67

FILE 'REGISTRY' ENTERED AT 15:18:37 ON 01 DEC 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 29 NOV 2004 HIGHEST RN 790629-40-2
DICTIONARY FILE UPDATES: 29 NOV 2004 HIGHEST RN 790629-40-2

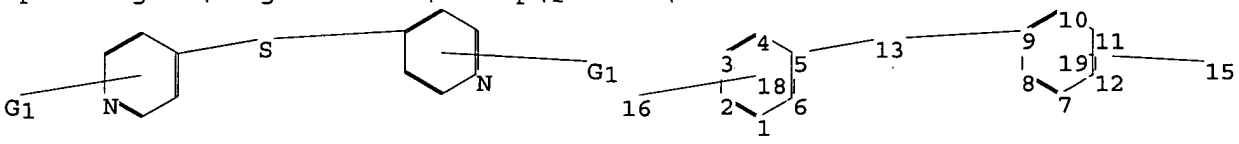
TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=>
Uploading C:\Program Files\Stnexp\Queries\355z.str



chain nodes :
13 15 16
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12
chain bonds :
5-13 9-13
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12

```
exact/norm bonds :
5-13  9-13
normalized bonds :
1-2  1-6  2-3  3-4  4-5  5-6  7-8  7-12  8-9  9-10  10-11  11-12


G1:H,Ak

Hydrogen count :
2:= exact 0  12:= exact 0
Connectivity :
2:2 E exact RC ring/chain  12:2 E exact RC ring/chain
Match level :
1:Atom  2:Atom  3:Atom  4:Atom  5:Atom  6:Atom  7:Atom  8:Atom  9:Atom  10:Atom
11:Atom  12:Atom  13:CLASS  15:CLASS  16:CLASS  18:CLASS  19:CLASS



L8      STRUCTURE UPLOADED

=> s l8 full
FULL SEARCH INITIATED 15:19:08 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -   2662 TO ITERATE

100.0% PROCESSED    2662 ITERATIONS                          137 ANSWERS
SEARCH TIME: 00.00.01

L9          137 SEA SSS FUL L8

=> d his

     (FILE 'HOME' ENTERED AT 15:12:13 ON 01 DEC 2004)

     FILE 'REGISTRY' ENTERED AT 15:12:24 ON 01 DEC 2004
L1              SCREEN 2040
L2              STRUCTURE UPLOADED
L3              QUE L2 NOT L1
L4          153 S L3 FULL

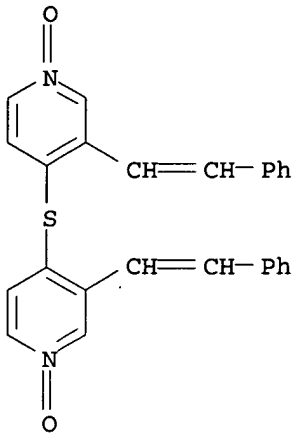
     FILE 'CAPLUS' ENTERED AT 15:13:37 ON 01 DEC 2004
L5        38894 S PHOTORESIST OR RESIST COMPOSITION
L6           95 S L4
L7            1 S L5 AND L6

     FILE 'REGISTRY' ENTERED AT 15:18:37 ON 01 DEC 2004
L8              STRUCTURE UPLOADED
L9          137 S L8 FULL

=> s l4 not l9
L10         20 L4 NOT L9

=> d 1-4

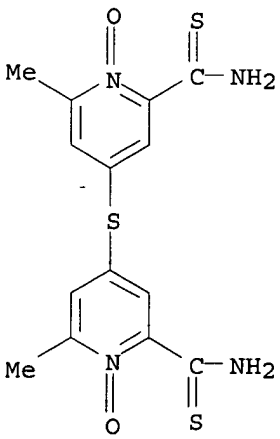
L10  ANSWER 1 OF 20  REGISTRY  COPYRIGHT 2004 ACS on STN
RN   119276-14-1  REGISTRY
CN   3-Stilbazole, 4,4'-thiodi-, 1,1'-dioxide (6CI)  (CA INDEX NAME)
MF   C26 H20 N2 O2 S
SR   CAOLD
LC   STN Files:   BEILSTEIN*, CA, CAOLD, CAPLUS
         (*File contains numerically searchable property data)
DT.CA  CAplus document type:  Journal
RL.NP  Roles from non-patents:  NORL (No role in record)
```



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L10 ANSWER 2 OF 20 REGISTRY COPYRIGHT 2004 ACS on STN
RN 104711-68-4 REGISTRY
CN 2-Pyridinecarbothioamide, 4,4'-thiobis[6-methyl-, 1,1'-dioxide (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C14 H14 N4 O2 S3
SR CA
LC STN Files: CA, CAPLUS
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

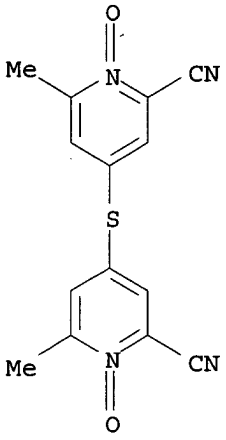


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L10 ANSWER 3 OF 20 REGISTRY COPYRIGHT 2004 ACS on STN
RN 104711-67-3 REGISTRY
CN 2-Pyridinecarbonitrile, 4,4'-thiobis[6-methyl-, 1,1'-dioxide (9CI) (CA

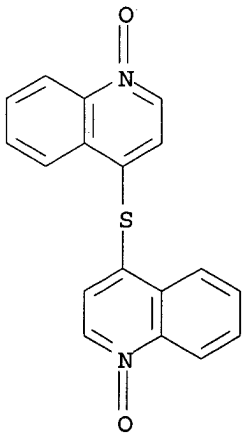
INDEX NAME)
FS 3D CONCORD
MF C14 H10 N4 O2 S
SR CA
LC STN Files: CA, CAPLUS
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L10 ANSWER 4 OF 20 REGISTRY COPYRIGHT 2004 ACS on STN
RN 94753-53-4 REGISTRY
CN Quinoline, 4,4'-thiodi-, 1,1'-dioxide (6CI, 7CI) (CA INDEX NAME)
MF C18 H12 N2 O2 S
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, TOXCENTER
(*File contains numerically searchable property data)
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: NORL (No role in record)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

5 REFERENCES IN FILE CA (1907 TO DATE)
5 REFERENCES IN FILE CAPLUS (1907 TO DATE)
2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> d his

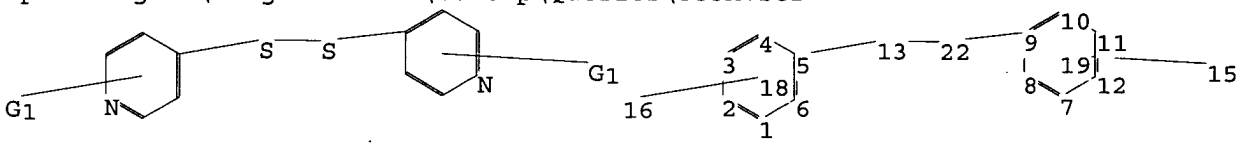
(FILE 'HOME' ENTERED AT 15:12:13 ON 01 DEC 2004)

FILE 'REGISTRY' ENTERED AT 15:12:24 ON 01 DEC 2004
L1 SCREEN 2040
L2 STRUCTURE UPLOADED
L3 QUE L2 NOT L1
L4 153 S L3 FULL

FILE 'CAPLUS' ENTERED AT 15:13:37 ON 01 DEC 2004
L5 38894 S PHOTORESIST OR RESIST COMPOSITION
L6 95 S L4
L7 1 S L5 AND L6

FILE 'REGISTRY' ENTERED AT 15:18:37 ON 01 DEC 2004
L8 STRUCTURE UPLOADED
L9 137 S L8 FULL
L10 20 S L4 NOT L9

=>
Uploading C:\Program Files\Stnexp\Queries\355x.str



chain nodes :
13 15 16 22
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12
chain bonds :
5-13 9-22 13-22
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12
exact/norm bonds :
5-13 9-22 13-22
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12

G1:H,Ak

Hydrogen count :
2:= exact 0 12:= exact 0
Connectivity :
2:2 E exact RC ring/chain 12:2 E exact RC ring/chain
Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:CLASS 15:CLASS 16:CLASS 18:CLASS 19:CLASS 22:CLASS

L11 STRUCTURE UPLOADED

```
=> s l11 full
FULL SEARCH INITIATED 15:20:02 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -    477 TO ITERATE

100.0% PROCESSED     477 ITERATIONS                                  84 ANSWERS
SEARCH TIME: 00.00.01

L12          84 SEA SSS FUL L11

=> file caplus
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                   317.92     492.59

FILE 'CAPLUS' ENTERED AT 15:20:06 ON 01 DEC 2004
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FILE COVERS 1907 - 1 Dec 2004  VOL 141 ISS 23
FILE LAST UPDATED: 29 Nov 2004  (20041129/ED)

  This file contains CAS Registry Numbers for easy and accurate
  substance identification.


=> d his

     (FILE 'HOME' ENTERED AT 15:12:13 ON 01 DEC 2004)

     FILE 'REGISTRY' ENTERED AT 15:12:24 ON 01 DEC 2004
L1             SCREEN 2040
L2             STRUCTURE UPLOADED
L3             QUE L2 NOT L1
L4         153 S L3 FULL

     FILE 'CAPLUS' ENTERED AT 15:13:37 ON 01 DEC 2004
L5       38894 S PHOTORESIST OR RESIST COMPOSITION
L6          95 S L4
L7           1 S L5 AND L6

     FILE 'REGISTRY' ENTERED AT 15:18:37 ON 01 DEC 2004
L8             STRUCTURE UPLOADED
L9         137 S L8 FULL
L10         20 S L4 NOT L9
L11            STRUCTURE UPLOADED
L12         84 S L11 FULL

     FILE 'CAPLUS' ENTERED AT 15:20:06 ON 01 DEC 2004

=> s l9
L13         88 L9

=> s l12
```

```
L14         363 L12

=> s l5 and l13
L15           1 L5 AND L13

=> s l5 and l14
L16           0 L5 AND L14

=> d l15

L15  ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2004 ACS on STN
AN   2000:772288  CAPLUS
DN   133:357238
TI   Negative-working resist composition
IN   Suetsugu, Masumi; Kusumoto, Takehiro; Takeyama, Naoki; Shinada, Masanori
PA   Sumitomo Chemical Co., Ltd., Japan
SO   Ger. Offen., 12 pp.
     CODEN: GWXXBX
DT   Patent
LA   German
FAN.CNT 2
     PATENT NO.           KIND   DATE        APPLICATION NO.         DATE
     ---------------      ----   --------    --------------------    --------
PI   DE 10021298          A1     20001102    DE 2000-10021298        20000502
     JP 2001147530        A2     20010529    JP 2000-88790           20000328
     TW 550268            B      20030901    TW 2000-89108000        20000427
     GB 2349479           A1     20001101    GB 2000-10477           20000428
     GB 2349479           B2     20010905
     US 6329119           B1     20011211    US 2000-559646          20000428
PRAI JP 1999-124526       A      19990430
     JP 1999-254630       A      19990908


=>
Uploading C:\Program Files\Stnexp\Queries\355w.str
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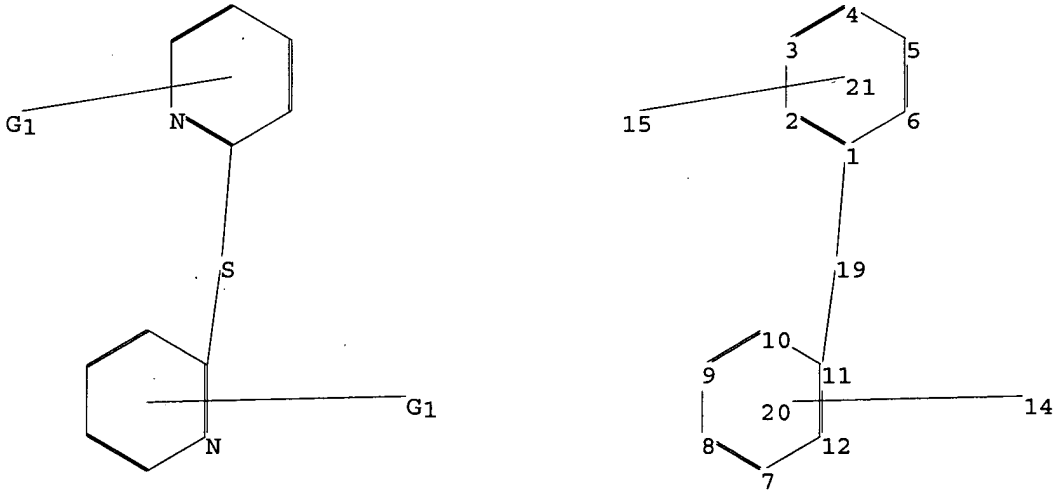



```
chain nodes :
14  15  19
ring nodes :
1  2  3  4  5  6  7  8  9  10  11  12
chain bonds :
1-19  11-19
ring bonds :
1-2  1-6  2-3  3-4  4-5  5-6  7-8  7-12  8-9  9-10  10-11  11-12
exact/norm bonds :
1-19  11-19
normalized bonds :
```

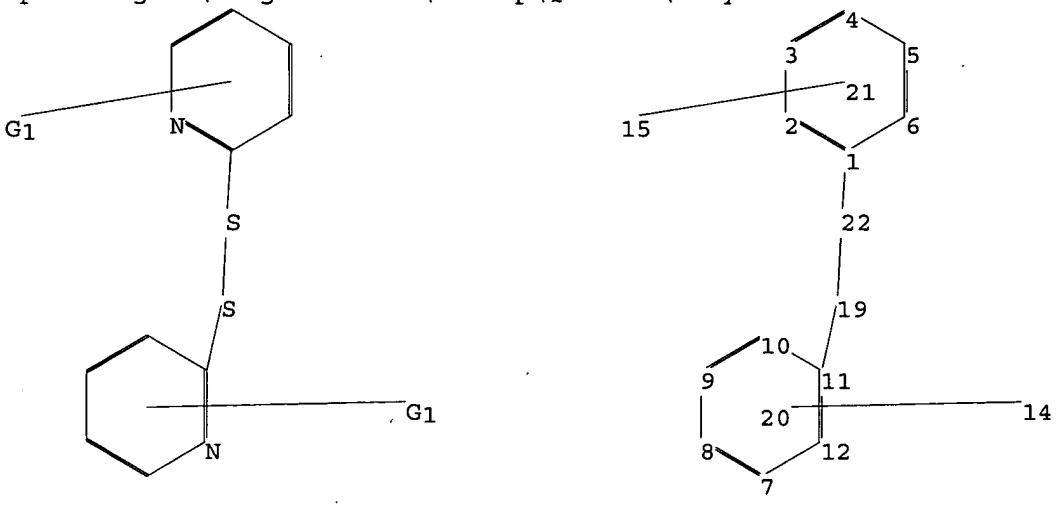
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12

G1:H,Ak

Hydrogen count :
2:= exact 0 12:= exact 0
Connectivity :
2:2 E exact RC ring/chain 12:2 E exact RC ring/chain
Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 14:CLASS 15:CLASS 19:CLASS 20:CLASS 21:CLASS

L17 STRUCTURE UPLOADED

=>
Uploading C:\Program Files\Stnexp\Queries\355y.str



chain nodes :
14 15 19 22
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12
chain bonds :
1-22 11-19 19-22
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12
exact/norm bonds :
1-22 11-19 19-22
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12

G1:H,Ak

Hydrogen count :
2:= exact 0 12:= exact 0
Connectivity :
2:2 E exact RC ring/chain 12:2 E exact RC ring/chain
Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 14:CLASS 15:CLASS 19:CLASS 20:CLASS 21:CLASS 22:CLASS

```
L18     STRUCTURE UPLOADED

=> s l17 full
   REGISTRY INITIATED
Substance data SEARCH and crossover from CAS REGISTRY in progress...
Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.



FULL SEARCH INITIATED 15:25:40 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -    589 TO ITERATE

100.0% PROCESSED     589 ITERATIONS                          259 ANSWERS
SEARCH TIME: 00.00.01

L19         259 SEA SSS FUL L17



L20        207 L19

=> s l18 full
   REGISTRY INITIATED
Substance data SEARCH and crossover from CAS REGISTRY in progress...
Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.



FULL SEARCH INITIATED 15:25:48 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -    572 TO ITERATE

100.0% PROCESSED     572 ITERATIONS                          298 ANSWERS
SEARCH TIME: 00.00.01

L21         298 SEA SSS FUL L18



L22       1370 L21

=> d his

     (FILE 'HOME' ENTERED AT 15:12:13 ON 01 DEC 2004)

     FILE 'REGISTRY' ENTERED AT 15:12:24 ON 01 DEC 2004
L1              SCREEN 2040
L2              STRUCTURE UPLOADED
L3              QUE L2 NOT L1
L4          153 S L3 FULL

     FILE 'CAPLUS' ENTERED AT 15:13:37 ON 01 DEC 2004
L5        38894 S PHOTORESIST OR RESIST COMPOSITION
L6           95 S L4
L7            1 S L5 AND L6

     FILE 'REGISTRY' ENTERED AT 15:18:37 ON 01 DEC 2004
L8              STRUCTURE UPLOADED
L9          137 S L8 FULL
L10          20 S L4 NOT L9
L11             STRUCTURE UPLOADED
```

```
L12          84 S L11 FULL

     FILE 'CAPLUS' ENTERED AT 15:20:06 ON 01 DEC 2004
L13          88 S L9
L14         363 S L12
L15           1 S L5 AND L13
L16           0 S L5 AND L14
L17             STRUCTURE UPLOADED
L18             STRUCTURE UPLOADED
                S L17

     FILE 'REGISTRY' ENTERED AT 15:25:39 ON 01 DEC 2004
L19         259 S L17 FULL

     FILE 'CAPLUS' ENTERED AT 15:25:40 ON 01 DEC 2004
L20         207 S L19 FULL
                S L18

     FILE 'REGISTRY' ENTERED AT 15:25:48 ON 01 DEC 2004
L21         298 S L18 FULL

     FILE 'CAPLUS' ENTERED AT 15:25:49 ON 01 DEC 2004
L22        1370 S L21 FULL

=> file reg
COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
                                                   ENTRY    SESSION
FULL ESTIMATED COST                                 0.44     809.33

FILE 'REGISTRY' ENTERED AT 15:26:24 ON 01 DEC 2004
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STRUCTURE FILE UPDATES:   29 NOV 2004  HIGHEST RN 790629-40-2
DICTIONARY FILE UPDATES:  29 NOV 2004  HIGHEST RN 790629-40-2

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

Crossover limits have been increased.  See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=>
Uploading C:\Program Files\Stnexp\Queries\355y.str
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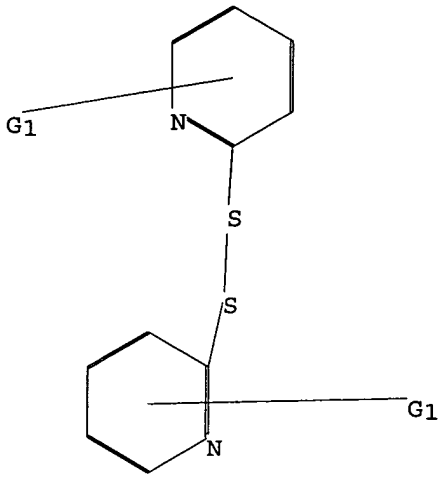
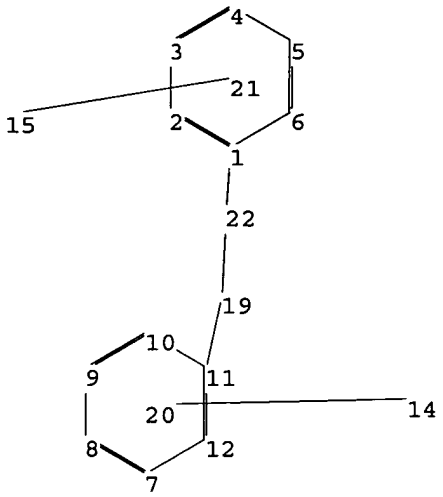




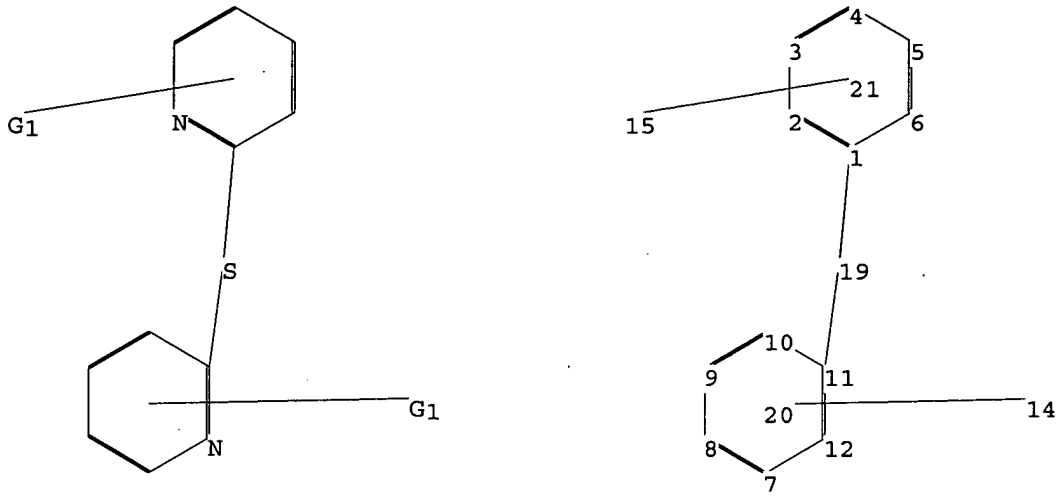
chain nodes :
14 15 19 22
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12
chain bonds :
1-22 11-19 19-22
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12
exact/norm bonds :
1-22 11-19 19-22
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12

G1:H,Ak

Hydrogen count :
2:= exact 0 12:= exact 0
Connectivity :
2:2 E exact RC ring/chain 12:2 E exact RC ring/chain
Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 14:CLASS 15:CLASS 19:CLASS 20:CLASS 21:CLASS 22:CLASS

L23 STRUCTURE UPLOADED

=>
Uploading C:\Program Files\Stnexp\Queries\355w.str



chain nodes :
14 15 19
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12
chain bonds :
1-19 11-19
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12
exact/norm bonds :
1-19 11-19
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12

G1:H,Ak

Hydrogen count :
2:= exact 0 12:= exact 0
Connectivity :
2:2 E exact RC ring/chain 12:2 E exact RC ring/chain
Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 14:CLASS 15:CLASS 19:CLASS 20:CLASS 21:CLASS

L24 STRUCTURE UPLOADED

=> s l23 full
FULL SEARCH INITIATED 15:27:06 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 572 TO ITERATE

100.0% PROCESSED 572 ITERATIONS 298 ANSWERS
SEARCH TIME: 00.00.01

L25 298 SEA SSS FUL L23

=> s l24 full
FULL SEARCH INITIATED 15:27:11 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 589 TO ITERATE

100.0% PROCESSED 589 ITERATIONS 259 ANSWERS
SEARCH TIME: 00.00.01

```
L26         259 SEA SSS FUL L24

=> file caplus
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                   310.42    1119.75

FILE 'CAPLUS' ENTERED AT 15:27:15 ON 01 DEC 2004
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FILE COVERS 1907 - 1 Dec 2004  VOL 141 ISS 23
FILE LAST UPDATED: 29 Nov 2004  (20041129/ED)

  This file contains CAS Registry Numbers for easy and accurate
  substance identification.


=> s l5 and l25
          1370 L25
L27          3 L5 AND L25

=> s l5 and l26
           207 L26
L28          1 L5 AND L26

=> d l27 1-3 bib hitstr

L27  ANSWER 1 OF 3  CAPLUS  COPYRIGHT 2004 ACS on STN
AN   1998:265903  CAPLUS
DN   128:315118
TI   Positive photoresist composition comprising dipyridyl compound
IN   Fukui, Nobuhito; Yako, Yuko; Takagaki, Hiroshi; Takahashi, Kenji
PA   Sumitomo Chemical Co., Ltd., Japan
SO   Eur. Pat. Appl., 10 pp.
     CODEN: EPXXDW
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.         DATE
     ---------------     ----   --------    --------------------    --------
PI   EP 837367           A2     19980422    EP 1997-117863          19971015
     EP 837367           A3     19990421
     EP 837367           B1     20020410
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO
     JP 10301264         A2     19981113    JP 1997-233671          19970829
     US 5891601          A      19990406    US 1997-950586          19971015
PRAI JP 1996-273333      A      19961016
     JP 1997-43778       A      19970227
OS   MARPAT 128:315118
IT   2127-03-9
     RL: TEM (Technical or engineered material use); USES (Uses)
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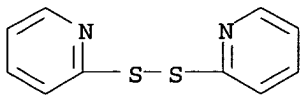
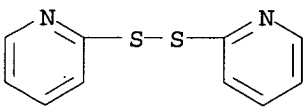
(chemical amplified pos. photoresists containing)
RN 2127-03-9 CAPLUS
CN Pyridine, 2,2'-dithiobis- (9CI) (CA INDEX NAME)



L27 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1991:438680 CAPLUS
DN 115:38680
TI Photosensitive composition
IN Niki, Hirokazu; Onishi, Yasunobu; Kobayashi, Yoshihito; Hayase, Rumiko
PA Toshiba Corp., Japan
SO Eur. Pat. Appl., 42 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 397474	A2	19901114	EP 1990-305004	19900509
	EP 397474	A3	19911106		
	EP 397474	B1	19971210		
	R: DE, FR, GB				
	US 5100768	A	19920331	US 1990-519397	19900504
	JP 03241354	A2	19911028	JP 1990-117458	19900509
PRAI	JP 1989-115478	A	19890509		
	JP 1989-328242	A	19891220		

OS MARPAT 115:38680
IT **4262-15-1**
RL: USES (Uses)
(photosensitive composition containing, for fine patterning)
RN 4262-15-1 CAPLUS
CN Pyridine, 2,2'-dithiobis-, dihydrochloride (9CI) (CA INDEX NAME)

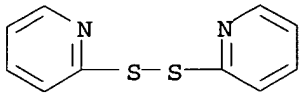


●2 HCl

L27 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1991:237652 CAPLUS
DN 114:237652
TI Far-UV photosensitive polymer compositions containing silsesquioxanes
IN Sakata, Yoshikazu; Ito, Toshio
PA Oki Electric Industry Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

PI JP 02222957 A2 19900905 JP 1989-44358 19890223
PRAI JP 1989-44358 19890223
IT **2127-03-9**, 2,2'-Dipyridyl disulfide
RL: USES (Uses)
(far UV photosensitive, for silsesquioxane photosensitive compns.)
RN 2127-03-9 CAPLUS
CN Pyridine, 2,2'-dithiobis- (9CI) (CA INDEX NAME)

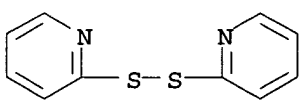


=> d l27 1-3 bib ab hitstr

L27 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1998:265903 CAPLUS
DN 128:315118
TI Positive **photoresist** composition comprising dipyridyl compound
IN Fukui, Nobuhito; Yako, Yuko; Takagaki, Hiroshi; Takahashi, Kenji
PA Sumitomo Chemical Co., Ltd., Japan
SO Eur. Pat. Appl., 10 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 837367	A2	19980422	EP 1997-117863	19971015
	EP 837367	A3	19990421		
	EP 837367	B1	20020410		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 10301264	A2	19981113	JP 1997-233671	19970829
	US 5891601	A	19990406	US 1997-950586	19971015
PRAI	JP 1996-273333	A	19961016		
	JP 1997-43778	A	19970227		

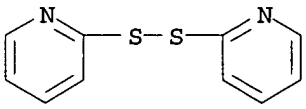
OS MARPAT 128:315118
AB A pos. **photoresist** composition of chemical amplifying type, which is excellent in sensitivity, resolution, heat resistance, film retention ratio, applicability, profile, and time delay effect resistance, comprises (A) a resin which is converted to alkali-soluble from alkali-insol. or alkali-slightly soluble by the action of an acid, (B) an acid generator and (C) a dipyridyl compound represented by the formula I wherein Z represents an organic bonding group having at least one hetero atom and R1-6 each independently represent hydrogen or an alkyl group having 1 to 4 carbon atoms.
IT **2127-03-9**
RL: TEM (Technical or engineered material use); USES (Uses)
(chemical amplified pos. photoresists containing)
RN 2127-03-9 CAPLUS
CN Pyridine, 2,2'-dithiobis- (9CI) (CA INDEX NAME)



L27 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1991:438680 CAPLUS
DN 115:38680
TI Photosensitive composition
IN Niki, Hirokazu; Onishi, Yasunobu; Kobayashi, Yoshihito; Hayase, Rumiko
PA Toshiba Corp., Japan
SO Eur. Pat. Appl., 42 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 397474	A2	19901114	EP 1990-305004	19900509
	EP 397474	A3	19911106		
	EP 397474	B1	19971210		
	R: DE, FR, GB				
	US 5100768	A	19920331	US 1990-519397	19900504
	JP 03241354	A2	19911028	JP 1990-117458	19900509
PRAI	JP 1989-115478	A	19890509		
	JP 1989-328242	A	19891220		

OS MARPAT 115:38680
AB A photosensitive composition is described containing an alkali-soluble polymer having a phenol skeleton in its structure, and a heterocyclic compound, e.g., I or II [Z1 = atoms to form a N-containing heterocyclic ring; R1, R2 = H, alkyl, alkoxy, acyl, alkenyl, OH, amine, etc.]. The composition is useful as deep-UV **photoresist** in fine patterning. The material has high dry etching resistance and wide allowance in controlling exposure and development steps.
IT **4262-15-1**
RL: USES (Uses)
(photosensitive composition containing, for fine patterning)
RN 4262-15-1 CAPLUS
CN Pyridine, 2,2'-dithiobis-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

L27 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1991:237652 CAPLUS
DN 114:237652
TI Far-UV photosensitive polymer compositions containing silsesquioxanes
IN Sakata, Yoshikazu; Ito, Toshio
PA Oki Electric Industry Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

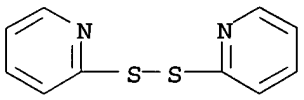
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 02222957	A2	19900905	JP 1989-44358	19890223
PRAI	JP 1989-44358		19890223		

AB The title composition contains a base polymer comprising a silsesquioxane derivative having an unsatd. group and(or) an alkyl group and a

photosensitizer comprising an aromatic compound having a heteroatom-heteroatom bond as in di-Ph disulfide which absorbs light in the far UV region and generates heteroat. radicals.

IT **2127-03-9**, 2,2'-Dipyridyl disulfide
RL: USES (Uses)
(far UV photosensitive, for silsesquioxane photosensitive compns.)

RN 2127-03-9 CAPLUS
CN Pyridine, 2,2'-dithiobis- (9CI) (CA INDEX NAME)



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L1 SCREEN 2040
L2 STRUCTURE UPLOADED
L3 QUE L2 NOT L1
L4 153 S L3 FULL

FILE 'CAPLUS' ENTERED AT 15:13:37 ON 01 DEC 2004
L5 38894 S PHOTORESIST OR RESIST COMPOSITION
L6 95 S L4
L7 1 S L5 AND L6

FILE 'REGISTRY' ENTERED AT 15:18:37 ON 01 DEC 2004
L8 STRUCTURE UPLOADED
L9 137 S L8 FULL
L10 20 S L4 NOT L9
L11 STRUCTURE UPLOADED
L12 84 S L11 FULL

FILE 'CAPLUS' ENTERED AT 15:20:06 ON 01 DEC 2004
L13 88 S L9
L14 363 S L12
L15 1 S L5 AND L13
L16 0 S L5 AND L14
L17 STRUCTURE UPLOADED
L18 STRUCTURE UPLOADED
S L17

FILE 'REGISTRY' ENTERED AT 15:25:39 ON 01 DEC 2004
L19 259 S L17 FULL

FILE 'CAPLUS' ENTERED AT 15:25:40 ON 01 DEC 2004
L20 207 S L19 FULL
S L18

FILE 'REGISTRY' ENTERED AT 15:25:48 ON 01 DEC 2004
L21 298 S L18 FULL

FILE 'CAPLUS' ENTERED AT 15:25:49 ON 01 DEC 2004
L22 1370 S L21 FULL

FILE 'REGISTRY' ENTERED AT 15:26:24 ON 01 DEC 2004
L23 STRUCTURE UPLOADED
L24 STRUCTURE UPLOADED

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L25          298 S L23 FULL
L26          259 S L24 FULL

     FILE 'CAPLUS' ENTERED AT 15:27:15 ON 01 DEC 2004
L27            3 S L5 AND L25
L28            1 S L5 AND L26

=> d l28 bib

L28  ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2004 ACS on STN
AN   1998:265903  CAPLUS
DN   128:315118
TI   Positive photoresist composition comprising dipyridyl compound
IN   Fukui, Nobuhito; Yako, Yuko; Takagaki, Hiroshi; Takahashi, Kenji
PA   Sumitomo Chemical Co., Ltd., Japan
SO   Eur. Pat. Appl., 10 pp.
     CODEN: EPXXDW
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.           KIND   DATE        APPLICATION NO.         DATE
     ---------------      ----   --------    --------------------    --------
PI   EP 837367             A2    19980422    EP 1997-117863          19971015
     EP 837367             A3    19990421
     EP 837367             B1    20020410
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO
     JP 10301264           A2    19981113    JP 1997-233671          19970829
     US 5891601            A     19990406    US 1997-950586          19971015
PRAI JP 1996-273333        A     19961016
     JP 1997-43778         A     19970227
OS   MARPAT 128:315118


=> d l28 bib ab hitstr

L28  ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2004 ACS on STN
AN   1998:265903  CAPLUS
DN   128:315118
TI   Positive photoresist composition comprising dipyridyl compound
IN   Fukui, Nobuhito; Yako, Yuko; Takagaki, Hiroshi; Takahashi, Kenji
PA   Sumitomo Chemical Co., Ltd., Japan
SO   Eur. Pat. Appl., 10 pp.
     CODEN: EPXXDW
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.           KIND   DATE        APPLICATION NO.         DATE
     ---------------      ----   --------    --------------------    --------
PI   EP 837367             A2    19980422    EP 1997-117863          19971015
     EP 837367             A3    19990421
     EP 837367             B1    20020410
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO
     JP 10301264           A2    19981113    JP 1997-233671          19970829
     US 5891601            A     19990406    US 1997-950586          19971015
PRAI JP 1996-273333        A     19961016
     JP 1997-43778         A     19970227
OS   MARPAT 128:315118
AB   A pos. photoresist composition of chemical amplifying type, which is
     excellent in sensitivity, resolution, heat resistance, film retention ratio,
     applicability, profile, and time delay effect resistance, comprises (A) a
     resin which is converted to alkali-soluble from alkali-insol. or
     alkali-slightly soluble by the action of an acid, (B) an acid generator and
     (C) a dipyridyl compound represented by the formula I wherein Z represents
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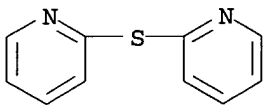
an organic bonding group having at least one hetero atom and R1-6 each independently represent hydrogen or an alkyl group having 1 to 4 carbon atoms.

IT **4262-06-0**
RL: TEM (Technical or engineered material use); USES (Uses)
(chemical amplified pos. photoresists containing)

RN 4262-06-0 CAPLUS

CN Pyridine, 2,2'-thiobis- (9CI) (CA INDEX NAME)



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FULL ESTIMATED COST	34.75	1154.50

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CA SUBSCRIBER PRICE	-2.80	-2.80

FILE 'REGISTRY' ENTERED AT 15:33:46 ON 01 DEC 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 29 NOV 2004 HIGHEST RN 790629-40-2
DICTIONARY FILE UPDATES: 29 NOV 2004 HIGHEST RN 790629-40-2

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

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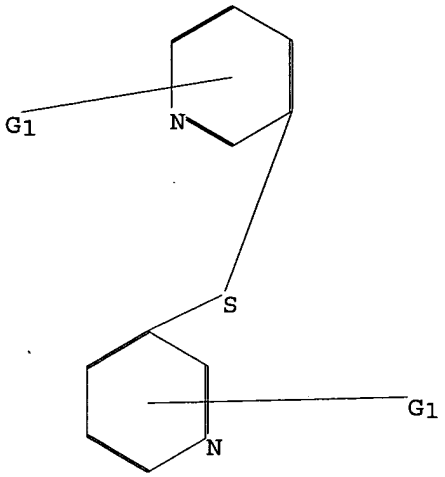

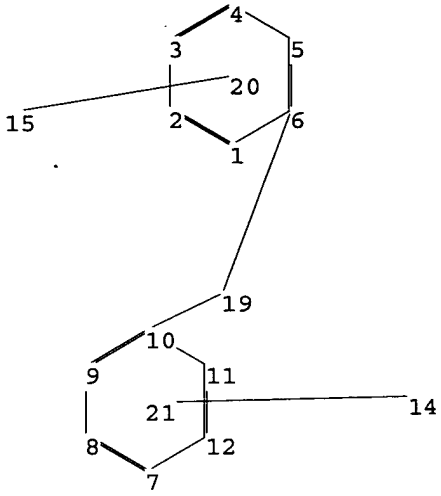

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14 15 19
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12
chain bonds :
6-19 10-19
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12
exact/norm bonds :
6-19 10-19
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12

G1:H,Ak

Hydrogen count :
2:= exact 0 12:= exact 0
Connectivity :
2:2 E exact RC ring/chain 12:2 E exact RC ring/chain
Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 14:CLASS 15:CLASS 19:CLASS 20:CLASS 21:CLASS

L29 STRUCTURE UPLOADED

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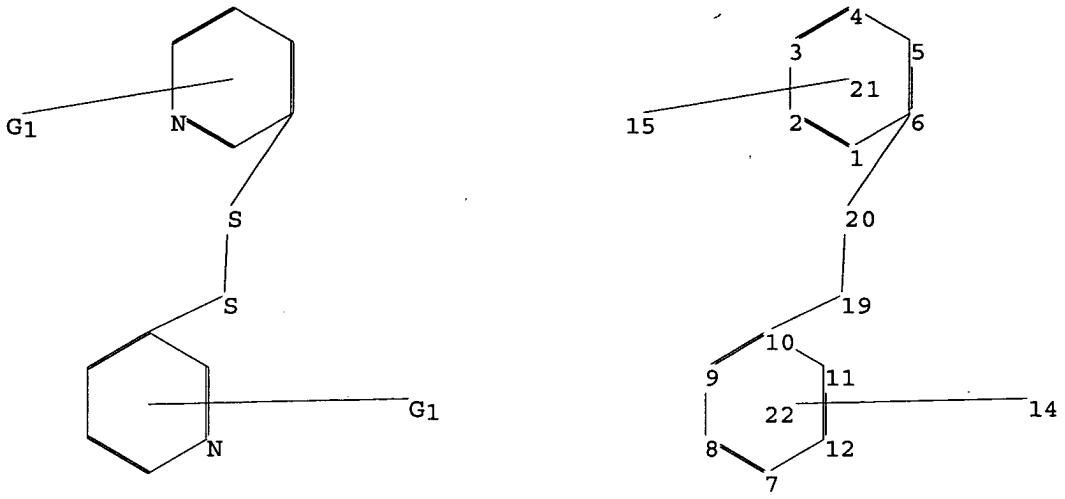

chain nodes :
14 15 19 20
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12
chain bonds :
6-20 10-19 19-20
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12
exact/norm bonds :
6-20 10-19 19-20
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12

G1:H,Ak

Hydrogen count :
2:= exact 0 12:= exact 0
Connectivity :
2:2 E exact RC ring/chain 12:2 E exact RC ring/chain
Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 14:CLASS 15:CLASS 19:CLASS 20:CLASS 21:CLASS 22:CLASS

L30 STRUCTURE UPLOADED

=> s l29 full
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FULL SCREEN SEARCH COMPLETED - 597 TO ITERATE

100.0% PROCESSED 597 ITERATIONS 107 ANSWERS
SEARCH TIME: 00.00.01

L31 107 SEA SSS FUL L29

=> s l30 full
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100.0% PROCESSED 319 ITERATIONS 74 ANSWERS
SEARCH TIME: 00.00.01

L32 74 SEA SSS FUL L30

=> file caplus

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DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-2.80

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USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 1 Dec 2004 VOL 141 ISS 23
FILE LAST UPDATED: 29 Nov 2004 (20041129/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 31
L33 290543 31

=> s l32
L34 71 L32

=> d l33 1-3

L33 ANSWER 1 OF 290543 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2004:1023387 CAPLUS
TI Benefit of Lamivudine Therapy and Factors Associated with Clinical Outcome in Spontaneous Severe Acute Exacerbation of Chronic Hepatitis B Virus Infection
AU Tsubota, Akihito; Arase, Yasuji; Suzuki, Yoshiyuki; Suzuki, Fumitaka; Hosaka, Tetsuya; Akuta, Norio; Someya, Takashi; Kobayashi, Masahiro; Saitoh, Satoshi; Ikeda, Kenji; Kumada, Hiromitsu
CS Institute of Clinical Medicine and Research (ICMR), Jikei University School of Medicine, Chiba, Japan
SO Intervirology (2004), 47(6), 335-341
CODEN: IVRYAK; ISSN: 0300-5526
PB S. Karger AG
DT Journal
LA English

L33 ANSWER 2 OF 290543 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2004:1023236 CAPLUS
TI Water leaching and magnetic separation for decreasing the chloride level and upgrading the zinc content of EAF steelmaking baghouse dusts
AU Bruckard, W. J.; Davey, K. J.; Rodopoulos, T.; Woodcock, J. T.; Italiano, J.
CS CSIRO Minerals, Box 312, Clayton South, 3169, Australia

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SO   International Journal of Mineral Processing (2005), 75(1-2), 1-20
     CODEN: IJMPBL; ISSN: 0301-7516
PB   Elsevier B.V.
DT   Journal
LA   English

L33  ANSWER 3 OF 290543  CAPLUS  COPYRIGHT 2004 ACS on STN
AN   2004:1023174  CAPLUS
TI   Potentialities of GaN-based microcavities in strong coupling regime at
     room temperature
AU   Antoine-Vincent, N.; Natali, F.; Byrne, D.; Disseix, P.; Vasson, A.;
     Leymarie, J.; Semond, F.; Massies, J.
CS   UMR 6602 UBP/CNRS, LASMEA, 24 Avenue des Landais, Aubie`re, 63177, Fr.
SO   Superlattices and Microstructures (2004), 36(4-6), 599-606
     CODEN: SUMIEK; ISSN: 0749-6036
PB   Elsevier B.V.
DT   Journal
LA   English


=> d l33 1-3 hitstr

L33  ANSWER 1 OF 290543  CAPLUS  COPYRIGHT 2004 ACS on STN

L33  ANSWER 2 OF 290543  CAPLUS  COPYRIGHT 2004 ACS on STN

L33  ANSWER 3 OF 290543  CAPLUS  COPYRIGHT 2004 ACS on STN


=> d his

     (FILE 'HOME' ENTERED AT 15:12:13 ON 01 DEC 2004)

     FILE 'REGISTRY' ENTERED AT 15:12:24 ON 01 DEC 2004
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L2             STRUCTURE UPLOADED
L3             QUE L2 NOT L1
L4         153 S L3 FULL

     FILE 'CAPLUS' ENTERED AT 15:13:37 ON 01 DEC 2004
L5       38894 S PHOTORESIST OR RESIST COMPOSITION
L6          95 S L4
L7           1 S L5 AND L6

     FILE 'REGISTRY' ENTERED AT 15:18:37 ON 01 DEC 2004
L8             STRUCTURE UPLOADED
L9         137 S L8 FULL
L10         20 S L4 NOT L9
L11            STRUCTURE UPLOADED
L12         84 S L11 FULL

     FILE 'CAPLUS' ENTERED AT 15:20:06 ON 01 DEC 2004
L13         88 S L9
L14        363 S L12
L15          1 S L5 AND L13
L16          0 S L5 AND L14
L17            STRUCTURE UPLOADED
L18            STRUCTURE UPLOADED
               S L17

     FILE 'REGISTRY' ENTERED AT 15:25:39 ON 01 DEC 2004
L19        259 S L17 FULL

     FILE 'CAPLUS' ENTERED AT 15:25:40 ON 01 DEC 2004
L20        207 S L19 FULL
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                S L18

     FILE 'REGISTRY' ENTERED AT 15:25:48 ON 01 DEC 2004
L21          298 S L18 FULL

     FILE 'CAPLUS' ENTERED AT 15:25:49 ON 01 DEC 2004
L22         1370 S L21 FULL

     FILE 'REGISTRY' ENTERED AT 15:26:24 ON 01 DEC 2004
L23               STRUCTURE UPLOADED
L24               STRUCTURE UPLOADED
L25          298 S L23 FULL
L26          259 S L24 FULL

     FILE 'CAPLUS' ENTERED AT 15:27:15 ON 01 DEC 2004
L27            3 S L5 AND L25
L28            1 S L5 AND L26

     FILE 'REGISTRY' ENTERED AT 15:33:46 ON 01 DEC 2004
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L30               STRUCTURE UPLOADED
L31          107 S L29 FULL
L32           74 S L30 FULL

     FILE 'CAPLUS' ENTERED AT 15:34:48 ON 01 DEC 2004
L33       290543 S 31
L34           71 S L32

=> s l5 and l33
L35         341 L5 AND L33

=> d 1-4 bib hitstr

L35  ANSWER 1 OF 341  CAPLUS  COPYRIGHT 2004 ACS on STN
AN   2004:999192  CAPLUS
TI   Method for fabricating contact hole of semiconductor device
IN   Hwang, Yeong Seon; Kim, Hyeong Su; Shin, Gi Su
PA   Hynix Semiconductor Inc., S. Korea
SO   Repub. Korean Kongkae Taeho Kongbo, No pp. given
     CODEN: KRXXA7
DT   Patent
LA   Korean
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
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PI   KR 2003092571        A     20031206    KR 2002-30277          20020530
PRAI KR 2002-30277              20020530

L35  ANSWER 2 OF 341  CAPLUS  COPYRIGHT 2004 ACS on STN
AN   2004:999191  CAPLUS
TI   Method for fabricating semiconductor device
IN   Kim, Jong Su
PA   Hynix Semiconductor Inc., S. Korea
SO   Repub. Korean Kongkae Taeho Kongbo, No pp. given
     CODEN: KRXXA7
DT   Patent
LA   Korean
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
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PI   KR 2003092569        A     20031206    KR 2002-30275          20020530
PRAI KR 2002-30275              20020530

L35  ANSWER 3 OF 341  CAPLUS  COPYRIGHT 2004 ACS on STN
AN   2004:999054  CAPLUS
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TI Method for forming **photoresist** pattern of semiconductor device
IN Bok, Cheol Gyu
PA Hynix Semiconductor Inc., S. Korea
SO Repub. Korean Kongkae Taeho Kongbo, No pp. given
    CODEN: KRXXA7
DT Patent
LA Korean
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	KR 2003089979	A	20031128	KR 2002-27916	20020520
PRAI	KR 2002-27916		20020520		

L35 ANSWER 4 OF 341 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2004:995042 CAPLUS
TI Method for manufacturing semiconductor device with anti-reflective coating layer
IN Kim, Dae Hyeon
PA Hynix Semiconductor Inc., S. Korea
SO Repub. Korean Kongkae Taeho Kongbo, No pp. given
    CODEN: KRXXA7
DT Patent
LA Korean
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	KR 2003059389	A	20030710	KR 2001-88249	20011229
PRAI	KR 2001-88249		20011229		

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L2 STRUCTURE UPLOADED
L3 QUE L2 NOT L1
L4 153 S L3 FULL

    FILE 'CAPLUS' ENTERED AT 15:13:37 ON 01 DEC 2004
L5 38894 S PHOTORESIST OR RESIST COMPOSITION
L6 95 S L4
L7 1 S L5 AND L6

    FILE 'REGISTRY' ENTERED AT 15:18:37 ON 01 DEC 2004
L8 STRUCTURE UPLOADED
L9 137 S L8 FULL
L10 20 S L4 NOT L9
L11 STRUCTURE UPLOADED
L12 84 S L11 FULL

    FILE 'CAPLUS' ENTERED AT 15:20:06 ON 01 DEC 2004
L13 88 S L9
L14 363 S L12
L15 1 S L5 AND L13
L16 0 S L5 AND L14
L17 STRUCTURE UPLOADED
L18 STRUCTURE UPLOADED
     S L17

    FILE 'REGISTRY' ENTERED AT 15:25:39 ON 01 DEC 2004
L19 259 S L17 FULL

    FILE 'CAPLUS' ENTERED AT 15:25:40 ON 01 DEC 2004

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L20          207 S L19 FULL
                 S L18

     FILE 'REGISTRY' ENTERED AT 15:25:48 ON 01 DEC 2004
L21          298 S L18 FULL

     FILE 'CAPLUS' ENTERED AT 15:25:49 ON 01 DEC 2004
L22         1370 S L21 FULL

     FILE 'REGISTRY' ENTERED AT 15:26:24 ON 01 DEC 2004
L23              STRUCTURE UPLOADED
L24              STRUCTURE UPLOADED
L25          298 S L23 FULL
L26          259 S L24 FULL

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L27            3 S L5 AND L25
L28            1 S L5 AND L26

     FILE 'REGISTRY' ENTERED AT 15:33:46 ON 01 DEC 2004
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L30              STRUCTURE UPLOADED
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L32           74 S L30 FULL

     FILE 'CAPLUS' ENTERED AT 15:34:48 ON 01 DEC 2004
L33       290543 S 31
L34           71 S L32
L35          341 S L5 AND L33

=> s l31
L36          58 L31

=> s l5 and l36
L37           0 L5 AND L36

=> s l5 and l34
L38           0 L5 AND L34

=> d his

     (FILE 'HOME' ENTERED AT 15:12:13 ON 01 DEC 2004)

     FILE 'REGISTRY' ENTERED AT 15:12:24 ON 01 DEC 2004
L1               SCREEN 2040
L2               STRUCTURE UPLOADED
L3               QUE L2 NOT L1
L4           153 S L3 FULL

     FILE 'CAPLUS' ENTERED AT 15:13:37 ON 01 DEC 2004
L5         38894 S PHOTORESIST OR RESIST COMPOSITION
L6            95 S L4
L7             1 S L5 AND L6

     FILE 'REGISTRY' ENTERED AT 15:18:37 ON 01 DEC 2004
L8               STRUCTURE UPLOADED
L9           137 S L8 FULL
L10           20 S L4 NOT L9
L11              STRUCTURE UPLOADED
L12           84 S L11 FULL

     FILE 'CAPLUS' ENTERED AT 15:20:06 ON 01 DEC 2004
L13           88 S L9
L14          363 S L12
L15            1 S L5 AND L13
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L16             0 S L5 AND L14
L17               STRUCTURE UPLOADED
L18               STRUCTURE UPLOADED
                  S L17

     FILE 'REGISTRY' ENTERED AT 15:25:39 ON 01 DEC 2004
L19           259 S L17 FULL

     FILE 'CAPLUS' ENTERED AT 15:25:40 ON 01 DEC 2004
L20           207 S L19 FULL
                  S L18

     FILE 'REGISTRY' ENTERED AT 15:25:48 ON 01 DEC 2004
L21           298 S L18 FULL

     FILE 'CAPLUS' ENTERED AT 15:25:49 ON 01 DEC 2004
L22          1370 S L21 FULL

     FILE 'REGISTRY' ENTERED AT 15:26:24 ON 01 DEC 2004
L23               STRUCTURE UPLOADED
L24               STRUCTURE UPLOADED
L25           298 S L23 FULL
L26           259 S L24 FULL

     FILE 'CAPLUS' ENTERED AT 15:27:15 ON 01 DEC 2004
L27             3 S L5 AND L25
L28             1 S L5 AND L26

     FILE 'REGISTRY' ENTERED AT 15:33:46 ON 01 DEC 2004
L29               STRUCTURE UPLOADED
L30               STRUCTURE UPLOADED
L31           107 S L29 FULL
L32            74 S L30 FULL

     FILE 'CAPLUS' ENTERED AT 15:34:48 ON 01 DEC 2004
L33        290543 S 31
L34            71 S L32
L35           341 S L5 AND L33
L36            58 S L31
L37             0 S L5 AND L36
L38             0 S L5 AND L34

=>

---Logging off of STN---


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Executing the logoff script...


=> LOG Y

COST IN U.S. DOLLARS                            SINCE FILE      TOTAL
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FULL ESTIMATED COST                                12.32    1477.66

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)      SINCE FILE      TOTAL
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CA SUBSCRIBER PRICE                                 0.00      -2.80

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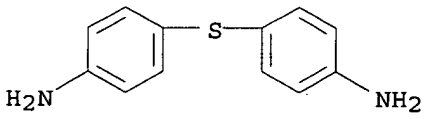
L17 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1984:148513 CAPLUS
DN 100:148513
TI Producing images in **photoresist** layers
IN Irving, Edward
PA Ciba-Geigy A.-G. , Switz.
SO Eur. Pat. Appl., 32 pp.
CODEN: EPXXDW
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 85024	A2	19830803	EP 1983-810016	19830117
	EP 85024	A3	19840926		
	EP 85024	B1	19870715		
	R: BE, CH, DE, FR, GB, IT, LI, NL, SE				
	US 4439517	A	19840327	US 1983-457107	19830110
	CA 1183038	A1	19850226	CA 1983-419783	19830119
	ES 519144	A1	19840516	ES 1983-519144	19830120
	JP 58136028	A2	19830812	JP 1983-8631	19830121
PRAI	GB 1982-1726	A	19820121		

AB **Photoresist** compns. are described which consist of an epoxy resin, a benzenoid polyamine, and an aromatic compound which upon exposure to light frees an acid that acts as an accelerator for the hardening of the epoxy resin by the benzenoid polyamine upon heating. Thus, a Cu-coated body was coated with a composition containing a 2,2-bis(3,5-dibromo-4-hydroxyphenyl)propane-2,2-bis(p-hydroxyphenyl)propane epoxy resin 10, a 1,1,2,2-tetrakis(p-hydroxyphenyl)ethane tetraglycidyl ether-2,2-bis(p-hydroxyphenyl)propane diglycidyl ether mixture 5, poly[2,2-bis(p-hydroxyphenyl)propane] 5, bis(4-aminophenyl)methane (in di-Bu phthalate) 4, o-nitrobenzaldehyde 4, and cyclohexanone 20 parts, exposed through a neg., heated at 120° for 15 min, and developed with PhMe to remove the unhardened areas and give a clear image.

IT **139-65-1**
RL: USES (Uses)
(**photoresist** compns. containing acid-releasing compound and epoxy resin and)

RN 139-65-1 CAPLUS
CN Benzenamine, 4,4'-thiobis- (9CI) (CA INDEX NAME)



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